

**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR  
ON THEIR JOB OUTCOMES: MODERATING ROLE OF  
SOCIAL AND EMOTIONAL COMPETENCE**



**Researcher**

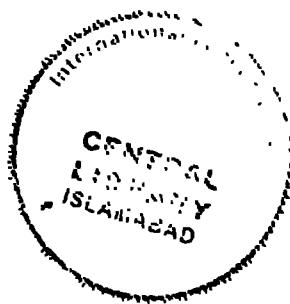
**ALAMZEB**

**Reg. 70-FSS/PHDPSY/F-18**

**Supervisor**

**Dr. MAZHAR IQBAL BHATTI**

**ASSISTANT PROFESSOR**



**DEPARTMENT OF PSYCHOLOGY**

**FACULTY OF SOCIAL SCIENCES**

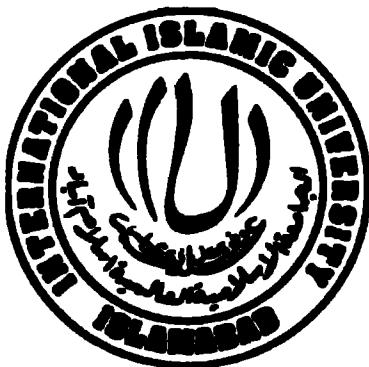
**INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD PAKISTAN**

**(2023)**

~~26095~~

PhD  
158.7  
ALE  
C<sub>2</sub>.  
100

**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR  
ON THEIR JOB OUTCOMES: MODERATING ROLE OF  
SOCIAL AND EMOTIONAL COMPETENCE**



**Researcher**

**ALAMZEB**

**Reg. 70-FSS/PHDPSY/F-18**

**Supervisor**

**Dr. MAZHAR IQBAL BHATTI**

**ASSISTANT PROFESSOR**

**DEPARTMENT OF PSYCHOLOGY**

**FACULTY OF SOCIAL SCIENCES**

**INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD PAKISTAN**

**(2018-22)**

**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR  
ON THEIR JOB OUTCOMES: MODERATING ROLE OF  
SOCIAL AND EMOTIONAL COMPETENCE**

Submitted to the Department of Psychology (Male Campus), International Islamic University  
Islamabad  
in partial fulfilment of the requirements  
for the award of degree of

PhD

IN

**PSYCHOLOGY**

By

**ALAMZEB**

**Reg. 70-FSS/PHDPSY/F-18**

**DEPARTMENT OF PSYCHOLOGY**

**FACULTY OF SOCIAL SCIENCES**

**INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD PAKISTAN**

**2018-22**

## DECLARATION

I, Mr. ALAMZEB, Registration No. 70-FSS/PHDPSY/F-18, student of PhD in the subject of Psychology, session 2018-22, hereby declare that the matter printed in the thesis titled: **Effects of rescue workers prosocial behavior on their job outcomes: moderating role of social and emotional competence** is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution etc in Pakistan or abroad.



Alamzeb

---

Date

Reg. 70-FSS/PHDPSY/F-18

## RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis titled: **Effects of rescue workers prosocial behavior on their job outcomes: moderating role of social and emotional competence** has been carried out and completed by Mr. ALAMZEB, Registration No. 70-FSS/PHDPSY/F18 under my supervision.

---

Date



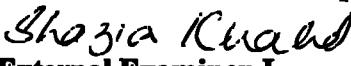
Supervisor

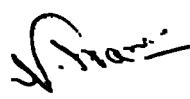
Dr. Mazhar Iqbal Bahti  
Assistant Professor  
Department of Psychology  
International Islamic University  
Islamabad

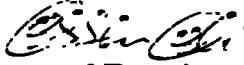
## CERTIFICATION

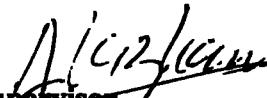
This is certified that we have read the thesis submitted by Mr. Alamzeb, bearing Registration No. 70-FSS/PHDPSY/F18. It is our judgment that this thesis is of sufficient standard to warrant its acceptance by International Islamic University, Islamabad, for the degree of Ph.D in Psychology.

### Committee:

  
**External Examiner-I**  
Prof. Dr. Shazia Khalid  
HoD, of Psychology, National University  
of Medical Sciences, Rawalpindi

  
**External Examiner-II**  
Dr. Noshi Iram Zaman  
Assistant Professor  
Department of Psychology  
Bahria University, Islamabad

  
**Internal Examiner**  
Dr. Asghar Ali Shah  
Assistant Professor,  
Department of Psychology,  
International Islamic University,  
Islamabad

  
**Supervisor**  
Dr. Mazhar Iqbal Bhatti  
Assistant Professor,  
Department of Psychology,  
International Islamic University,  
Islamabad

  
**Chairperson**  
Department of Psychology,  
International Islamic University,  
Islamabad

  
**Dean**  
Faculty of Social Sciences,  
International Islamic University,  
Islamabad

## **Dedication**

**This research thesis is dedicated to my deceased father (Haji, Muhammad Sharif), mother (mom) and brother (Muhammad Rafique). My brother Muhammad Rafique (late) supported me on every occasion of my life but today on this great day of success in my life he is not here with me. I missed him a lot.**

### **Acknowledgement**

**Start with the name of Allah the most merciful and mighty. I am very thankful to Allah almighty, who bestowed me the strength and opportunity to complete this research work and fulfil the dream of my father Haji Muhammad Sharif (late), my late mother and my brother Muhammad Rafique (late). I desire to extend my recognition to those all who pray and think positively for me and to those who supported me any way during the entire research process.**

I intensely and vigorously recognize my research supervisor, Dr. Mazhar Iqbal Bhati, Assistant Professor for his precious guidelines and immediate feedback whenever, I requested. His academic competence and inspirational research skills motivated and strengthened me to work hard as a researcher from the phase of immaturity to maturity and accomplish the work. I am extremely thankful for his everlasting support and collaboration on replying all types of queries. I am also very thankful to my friends Dr. Sabir Zaman, Dept. of Psychology International Islamic University, Islamabad and Dr. Qaiser Suleman, Dept. of Elementary and Secondary Education, for their useful guidelines and support during the entire research work of my doctoral studies. They never pretended whenever, I called and requested guidelines.

I will also like to recognize the contribution of Mr. Aurang Zeb Khan Mehsud, for helping me in computer and composing related issues. I am also thankful to District Emergency Officers, who allowed me for data collection. In the last I am also thankful to all research participants, who provided me data free and voluntarily and nothing demanded in return instead of busy shift duty.

I cannot uncover my expressions regarding the support of my wife (Jameela Alam), children and brothers Jehan Zeb Khan (Pakistan Rangers) and Muhammad Iqbal (Pakistan Navy). The devotion, love and trust of my family on me waived off the stress and load from my shoulders. I am really thankful to my children Nayab Alam, Seemab Alam, Muhammad Masoom Alam and little Javeria Gul, who never complained about the time I am spending in research. They always prayed and supported me towards the timely accomplishment of this research project.

In the last I also say thanks to all my office staff, who always help and supported me in the office work and provided an opportunity and saved my time to complete the research.

**Alamzeb**

**Reg. 70-FSS/PHDPSY/F-18**

**PhD Scholar**

**Dept. of Psychology**

## Table of Contents

	<b>Page No</b>
<b>Title page.....</b>	<b>ii</b>
<b>Declaration.....</b>	<b>iii</b>
<b>Research Completion Certificate.....</b>	<b>iv</b>
<b>Viva Voce Committee Certificate.....</b>	<b>v</b>
<b>Dedication.....</b>	<b>vi</b>
<b>Acknowledgement .....</b>	<b>vii</b>
<b>Table of Contents.....</b>	<b>viii</b>
<b>List of Tables.....</b>	<b>xiv</b>
<b>List of Figures.....</b>	<b>xvi</b>
<b>List of Appendices.....</b>	<b>xvii</b>
<b>List of Abbreviations.....</b>	<b>xviii</b>
<b>Abstract.....</b>	<b>xx</b>
<b>1. INTRODUCTION.....</b>	<b>01</b>
1.1 <b>Background of the Study.....</b>	<b>01</b>
1.2 <b>Rescue services in Pakistan.....</b>	<b>02</b>
1.2.1 <b>Establishment of Rescue Services in Pakistan.....</b>	<b>03</b>
1.2.2 <b>Current Position of Rescue Services in Pakistan.....</b>	<b>04</b>
1.2.3 <b>Details of Rescue Staff at a District.....</b>	<b>05</b>
1.2.4 <b>Duties of Rescue Workers.....</b>	<b>05</b>
1.2.5 <b>Rescue Workers are Prone to Different Hazards.....</b>	<b>06</b>
1.2.6 <b>Psychological Disorders and Rescue Workers.....</b>	<b>09</b>
1.3 <b>Divine Instructions Regarding Prosocial Behavior.....</b>	<b>11</b>
1.4 <b>Prophet's Directions to be Prosocial.....</b>	<b>12</b>
1.5 <b>Theoretical Orientation of Prosocial Behavior.....</b>	<b>13</b>
1.6 <b>Job Outcomes.....</b>	<b>14</b>
1.7 <b>Social and Emotional Competence.....</b>	<b>15</b>
1.8 <b>Problem Statement.....</b>	<b>16</b>
1.9 <b>Significance of the Study.....</b>	<b>17</b>
1.10 <b>Objectives of the Study.....</b>	<b>19</b>
1.11 <b>Hypotheses.....</b>	<b>20</b>

1.12	<b>Delimitations of the Study.....</b>	22
2.	<b>LITERATURE REVIEW.....</b>	23
2.1	<b>Prosocial Behavior.....</b>	23
2.1.1	<b>Prosociality an Automatic Process.....</b>	24
2.1.2	<b>Prosociality in the Workplace.....</b>	26
2.1.3	<b>Prosocial Behavior VS Organizational Citizenship Behavior.....</b>	27
2.1.4	<b>Theories of Prosocial Behavior in Workplace.....</b>	29
2.1.5	<b>Prosociality in Emergency Situations.....</b>	31
2.1.6	<b>Prosociality in Children.....</b>	32
2.1.7	<b>Prosocial Behavior and Human Personality.....</b>	33
2.1.8	<b>Prosocial Behavior and Employee Work Engagement.....</b>	34
2.1.9	<b>Prosocial Behavior and Counterproductive Work Behavior.....</b>	35
2.1.10	<b>Prosocial Behavior and Turnover Intentions.....</b>	35
2.2	<b>Social and Emotional Competence.....</b>	38
2.2.1	<b>Types of Social and Emotional Competence.....</b>	39
2.2.1.1	<b>Self-awareness in a hazardous situation.....</b>	39
2.2.1.2	<b>Self-management.....</b>	39
2.2.1.3	<b>Decision Making in a Critical Scenario.....</b>	39
2.2.1.4	<b>Social Awareness.....</b>	40
2.2.1.5	<b>Relationship Skills.....</b>	40
2.2.2	<b>Gender Differences in Social and Emotional Competence.....</b>	43
2.2.3	<b>Social and Emotional Competencies in Rescue Workers.....</b>	44
2.3	<b>Job Outcomes.....</b>	46
2.4	<b>Work Engagement.....</b>	46
2.4.1	<b>Engagement works like a Tool.....</b>	48
2.4.2	<b>Types of Employee Work Engagement.....</b>	48
2.4.2.1	<b>Cognitive Engagement.....</b>	48
2.4.2.2	<b>Emotional Engagement.....</b>	49
2.4.2.3	<b>Physical Engagement.....</b>	50
2.4.3	<b>Factors Influencing Work Engagement.....</b>	50
2.4.3.1	<b>The Workplace.....</b>	50
2.4.3.2	<b>Effective Communication System.....</b>	51
2.4.3.3	<b>Reward and Recognition System.....</b>	52

2.4.3.4	Career Development Program.....	52
2.4.3.5	Personality of the Employee.....	53
2.4.4	Work Engagement among Rescue Workers.....	55
2.5	Counterproductive Work Behavior.....	55
2.5.1	Interpersonal Workplace Aggression and CWBs.....	57
2.5.2	Counterproductive Work Behavior VS Deviant Behavior.....	58
2.5.3	Types of Counterproductive Work Behavior.....	59
2.5.3.1	Abuse Against Others.....	60
2.5.3.2	Production Deviance.....	60
2.5.3.3	Sabotage.....	61
2.5.3.4	Incivility.....	61
2.5.3.5	Workplace Violence/ Aggression.....	61
2.5.3.6	Sexual Harassment.....	62
2.5.3.7	Withdrawal.....	62
2.5.3.8	Theft.....	62
2.5.4	Causes of Counterproductive Work Behavior.....	63
2.5.4.1	Poor Interpersonal Relationship.....	64
2.5.4.2	Toxic Leadership.....	64
2.5.4.3	Unsupportive Co-workers.....	64
2.5.4.4	Injustice.....	65
2.5.4.5	Dissatisfaction in Job.....	65
2.5.4.6	Situational Consequences.....	65
2.5.4.7	Workplace Climate.....	66
2.5.5	Factors Influencing Counterproductive Work Behavior.....	67
2.6	Turnover Intentions.....	68
2.6.1	Turnover Intentions as a Multistage Process.....	68
2.6.2	Factors Influencing Turnover Intentions.....	69
2.6.2.1	Compensation and Fringe Benefits.....	69
2.6.2.2	Skills Training.....	70
2.6.2.3	Recognition and Performance management.....	70
2.6.2.4	Professional Development.....	71
2.6.2.5	Interpersonal Relationship.....	72
2.6.3	Turnover Intentions in Emergency Services.....	73

2.7	<b>Conceptual Framework of the Research.....</b>	75
3.	<b>METHODOLOGY (Study I).....</b>	76
3.1.1	<b>Research Design.....</b>	76
3.1.2	<b>Objectives.....</b>	76
3.1.3	<b>Population.....</b>	76
3.1.4	<b>Sample.....</b>	77
3.1.5	<b>Operational Definitions of the Variables.....</b>	77
3.1.5.1	<b>Prosocial Behavior.....</b>	78
3.1.5.2	<b>Work Engagement.....</b>	78
3.1.5.3	<b>Counterproductive Work Behavior.....</b>	78
3.1.6	<b>Instruments.....</b>	78
3.1.6.1	<b>Demographic Data Sheet.....</b>	78
3.1.6.2	<b>Work &amp; Well-being Survey (UWES).....</b>	78
3.1.6.3	<b>Short Version of the Counterproductive Work Behaviour Checklist (CWB-C).....</b>	79
3.1.6.4	<b>Development of Prosocial Behavior Scale for Rescue Workers.....</b>	79
3.1.6.4.1	<b>Identification of Related Constructs.....</b>	79
3.1.6.4.2	<b>Generation of Items Pool.....</b>	80
3.1.6.4.3	<b>Final Selection of Items for data collection.....</b>	81
3.1.6.4.4	<b>Data Collection.....</b>	81
3.1.6.4.5	<b>Empirical Assessment.....</b>	82
3.1.6.4.6	<b>Analysis and Results.....</b>	82
3.1.7	<b>Procedure.....</b>	84
3.1.8	<b>Data Analysis &amp; Results.....</b>	85
3.1.8.1	<b>Factor I: Emotional Behavior.....</b>	85
3.1.8.2	<b>Factor II: Social Behavior.....</b>	85
3.1.8.3	<b>Factor III: Empathetic Behavior.....</b>	86
3.1.8.4	<b>Factor IV: Helping Behavior.....</b>	86
3.1.8.5	<b>Factor V: Caring &amp; Sharing Behavior.....</b>	86
3.1.9	<b>Discussion.....</b>	95
3	<b>METHODOLOGY (Study II) Main Study.....</b>	98
3.2.1	<b>Research Design.....</b>	98
3.2.2	<b>Location of the Current Study.....</b>	99

<b>3.2.3</b>	<b>Population.....</b>	<b>99</b>
<b>3.2.4</b>	<b>Sample.....</b>	<b>99</b>
<b>3.2.4.1</b>	<b>Inclusion Criteria.....</b>	<b>99</b>
<b>3.2.4.2</b>	<b>Exclusion Criteria.....</b>	<b>100</b>
<b>3.2.5</b>	<b>Operational Definitions.....</b>	<b>100</b>
<b>3.2.5.1</b>	<b>Prosocial Behavior.....</b>	<b>100</b>
<b>3.2.5.2</b>	<b>Social and Emotional Competence.....</b>	<b>100</b>
<b>3.2.5.3</b>	<b>Work Engagement.....</b>	<b>101</b>
<b>3.2.5.4</b>	<b>Counterproductive Work Behavior.....</b>	<b>101</b>
<b>3.2.5.5</b>	<b>Turnover Intentions.....</b>	<b>101</b>
<b>3.2.6</b>	<b>Methods of Data Collection.....</b>	<b>101</b>
<b>3.2.7</b>	<b>Instruments.....</b>	<b>102</b>
<b>3.2.7.1</b>	<b>Demographic Data Sheet.....</b>	<b>102</b>
<b>3.2.7.2</b>	<b>Prosocial Behavior Scale for Rescue Workers.....</b>	<b>102</b>
<b>3.2.7.3</b>	<b>The Social and Emotional Competence Questionnaire (SEC-Q).....</b>	<b>102</b>
<b>3.2.7.4</b>	<b>Work &amp; Well-being Survey (UWES).....</b>	<b>102</b>
<b>3.2.7.5</b>	<b>Short Version of the Counterproductive Work Behaviour Checklist (CWB-C).....</b>	<b>103</b>
<b>3.2.7.6</b>	<b>Turnover Intension Scale (TIS).....</b>	<b>103</b>
<b>3.2.8</b>	<b>Quantitative Data Analysis Techniques.....</b>	<b>103</b>
<b>3.2.</b>	<b>Ethical Consideration.....</b>	<b>104</b>
<b>3.2.10</b>	<b>Procedure.....</b>	<b>105</b>
<b>4</b>	<b>RESULTS.....</b>	<b>106</b>
<b>5</b>	<b>Discussion .....</b>	<b>141</b>
<b>5.1</b>	<b>Discussion.....</b>	
<b>5.2</b>	<b>Conclusion.....</b>	<b>154</b>
<b>5.3</b>	<b>Contribution of the Current Research.....</b>	<b>155</b>
<b>5.3.1</b>	<b>Contribution through Development of New Scale.....</b>	<b>155</b>
<b>5.3.2</b>	<b>Contribution to the organization of Rescue 1122.....</b>	<b>155</b>
<b>5.4</b>	<b>Suggestions and Future Directions.....</b>	<b>157</b>
<b>5.5</b>	<b>Intervention Plan.....</b>	<b>158</b>
<b>5.5.1</b>	<b>Training and Development Programs.....</b>	<b>158</b>

<b>5.5.2</b>	<b>Support System within the Organization.....</b>	<b>158</b>
<b>5.5.3</b>	<b>Context Specific Guidelines and Protocols.....</b>	<b>158</b>
<b>5.5.4</b>	<b>Continued Research and Evaluation.....</b>	<b>159</b>
<b>5.5.6</b>	<b>Promotion of Work-life Balance.....</b>	<b>159</b>
	<b>REFERENCES.....</b>	<b>161</b>
	<b>APPENDICES.....</b>	<b>203</b>

### List of Tables

<b>Table No.</b>		<b>Page No.</b>
Table 1	Details of Population and Sample for Study I.....	76
Table 2	Frequency and Percentage of Sample Demographic Variables.....	87
Table 3	Exploratory Factor Analysis.....	88
Table 4	Convergent and Discriminate Validity Analysis.....	91
Table 5	Correlation Analysis (Overall).....	92
Table 6	Goodness-of-fit Indices of confirmatory Factor Analysis.....	94
Table 7	Details of Sample and Population for Main Study.....	106
Table 8	Frequency and Percentage of Sample Demographic Variables.....	107
Table 9	Correlation analysis (All Five subscales of Prosocial behavior and Work engagement) .....	108
Table 10	Correlation analysis (All Five subscales of Prosocial behavior and Work engagement) .....	109
Table 11	Correlation analysis (All Five subscales of Prosocial behavior and Work engagement) .....	110
Table 12	Model Summary of Moderation Analysis.....	111
Table 13	Coefficients and Moderation (IV= EB, MV= SEC & DV= UWES) ..	112
Table 14	Model Summary of Moderation Analysis.....	113
Table 15	Coefficients and Moderation (IV= SB, MV= SEC & DV= UWES) ..	114
Table 16	Model Summary of Moderation Analysis.....	115
Table 17	Coefficients and Moderation (IV= EB, MV= SEC & DV= UWES) ..	116
Table 18	Model Summary of Moderation Analysis.....	117
Table 19	Coefficients and Moderation (IV= HB, MV= SEC & DV= UWES).	118

<b>Table 20</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>119</b>
<b>Table 21</b>	<b>Coefficients and Moderation (IV= CSB, MV= SEC &amp; DV= UWES)</b>	<b>120</b>
<b>Table 22</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>121</b>
<b>Table 23</b>	<b>Coefficients and Moderation (IV= EB, MV= SEC &amp; DV= CWBs)..</b>	<b>122</b>
<b>Table 24</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>123</b>
<b>Table 25</b>	<b>Coefficients and Moderation (IV= SB, MV= SEC &amp; DV= CWBs)...</b>	<b>124</b>
<b>Table 26</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>125</b>
<b>Table 27</b>	<b>Coefficients and Moderation (IV= EB, MV= SEC &amp; DV= CWBs)..</b>	<b>126</b>
<b>Table 28</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>127</b>
<b>Table 29</b>	<b>Coefficients and Moderation (IV= HB, MV= SEC &amp; DV= CWBs)..</b>	<b>128</b>
<b>Table 30</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>129</b>
<b>Table 31</b>	<b>Coefficients and Moderation (IV= CSB, MV= SEC &amp; DV= CWBs)</b>	<b>130</b>
<b>Table 32</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>131</b>
<b>Table 33</b>	<b>Coefficients and Moderation (IV= EB, MV= SEC &amp; DV= TOIs)....</b>	<b>132</b>
<b>Table 34</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>133</b>
<b>Table 35</b>	<b>Coefficients and Moderation (IV= SB, MV= SEC &amp; DV= TOIs)....</b>	<b>134</b>
<b>Table 36</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>135</b>
<b>Table 37</b>	<b>Coefficients and Moderation (IV= EB, MV= SEC &amp; DV= TOIs)....</b>	<b>136</b>
<b>Table 38</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>137</b>
<b>Table 39</b>	<b>Coefficients and Moderation (IV= HB, MV= SEC &amp; DV= TOIs)...</b>	<b>138</b>
<b>Table 40</b>	<b>Model Summary of Moderation Analysis.....</b>	<b>139</b>
<b>Table 41</b>	<b>Coefficients and Moderation (IV= CSB, MV= SEC &amp; DV= TOIs)..</b>	<b>140</b>

**List of Figures**

<b>Figure No</b>		<b>Page No</b>
Figure 1	Conceptual Framework for Study I.....	75
Figure 2	Conceptual Framework for Study II (Main Study).....	75
Figure 3	Scree Plot.....	90
Figure 4	CFA Model.....	93

### **List of Appendices**

	<b>Page No</b>	
<b>Appendix A</b>	<b>Request of Data Collection (DEO).....</b>	<b>203</b>
<b>Appendix B</b>	<b>Request of Data Collection (SHI).....</b>	<b>204</b>
<b>Appendix C</b>	<b>Participants Individuals Consent Form.....</b>	<b>205</b>
<b>Appendix D</b>	<b>Demographic Data Sheet.....</b>	<b>206</b>
<b>Appendix E</b>	<b>Initial List of Items.....</b>	<b>207</b>
<b>Appendix F</b>	<b>Items List Approved by the Committee.....</b>	<b>209</b>
<b>Appendix G</b>	<b>Prosocial Behavior Scale for Rescue Workers.....</b>	<b>211</b>
<b>Appendix H</b>	<b>Social and Emotional Competence Questionnaire.....</b>	<b>212</b>
<b>Appendix I</b>	<b>Utrecht Work and Well-being Survey.....</b>	<b>213</b>
<b>Appendix J</b>	<b>Short Version of Counterproductive Work Behavior.....</b>	<b>214</b>
<b>Appendix K</b>	<b>Turnover Intention Scale.....</b>	<b>215</b>
<b>Appendix L</b>	<b>English Language Expert Certificate.....</b>	<b>216</b>
<b>Appendix M</b>	<b>Ethical Committee Certificate.....</b>	<b>217</b>
<b>Appendix N</b>	<b>Author's Permission to use SEC-Q Scale.....</b>	<b>218</b>
<b>Appendix O</b>	<b>Author's Permission to use Turnover Intentions Scale.....</b>	<b>219</b>

### **List of Abbreviations**

<b>KMO</b>	<b>Kaiser-Meyer-Olkin</b>
<b>EFA</b>	<b>Exploratory Factors Analysis</b>
<b>CFA</b>	<b>Confirmatory Factor Analysis</b>
<b>SEC-Q</b>	<b>Social and Emotional Competencies Questionnaire</b>
<b>PBS-RW</b>	<b>Prosocial Behavior Scale for Rescue Workers</b>
<b>ERS</b>	<b>Emergency Rescue Service</b>
<b>EMS</b>	<b>Emergency Medical Services</b>
<b>CMS</b>	<b>Call Monitoring Software</b>
<b>CPR</b>	<b>Cardio Pulmonary Resuscitation</b>
<b>IoT</b>	<b>Internet of Things</b>
<b>SPSS</b>	<b>Special Package for Social Science</b>
<b>DEO</b>	<b>District Emergency Officer</b>
<b>PTSD</b>	<b>Post-Traumatic Stress Disorder</b>
<b>OCB</b>	<b>Organizational Citizenship Behavior</b>
<b>CWB</b>	<b>Counterproductive Work Behavior</b>
<b>CWBs</b>	<b>Counterproductive Work Behaviors</b>
<b>EMT</b>	<b>Emergency Medical Technician</b>
<b>FR</b>	<b>Fire Rescuer</b>
<b>EEOC</b>	<b>Equal Employment Opportunity Commission</b>
<b>EI</b>	<b>Emotional Intelligence</b>
<b>SOPs</b>	<b>Standard Operating Procedures</b>
<b>UWES</b>	<b>Utrecht Work Engagement Scale</b>
<b>SD</b>	<b>Standard Deviation</b>
<b>RMSE</b>	<b>Root Mean Square Error of Approximation</b>

<b>RMR</b>	<b>Root Mean Square</b>
<b>SRMR</b>	<b>Standardized Root Mean Square Residual</b>
<b>CFI</b>	<b>Comparative Fit Index</b>
<b>GFI</b>	<b>Goodness of Fit Index</b>
<b>TLI</b>	<b>Tucker Lewis Index</b>

## ABSTRACT

This research examined the impact of prosocial behavior on the job outcomes (work engagement, counterproductive work behavior & turnover intentions) of rescue workers in Khyber Pakhtunkhwa, Pakistan, with a focus on the moderating role of social and emotional competencies. The study also developed and validated a specific scale for measuring prosocial behavior among rescue workers. Data was collected from a sample of 300 operational rescue workers for scale development and from 385 for the main study by using purposive sampling technique. The KMO value for the constructed scale exceeded the recommended threshold (.83 > .60), and the Bartlett Test of Sphericity yielded a significant result ( $\chi^2 = 4719.252, p < .001$ ), indicating suitability for factor analysis. Exploratory Factor Analysis identified 23 items representing five constructs (Emotional, Social, Empathetic, Helping, and Caring & Sharing). Convergent and discriminant validity was assessed with work engagement and counterproductive work behavior scales. Five research scales were used including Prosocial Behavior Scale for Rescue workers (Khattak et al., 2022), Social and Emotional Competencies Questionnaire (Zych et al., 2018), Utrecht Work Engagement Scale (Schaufeli et al., 2003), Counterproductive Work Behavior Checklist (Spector et al., 2010) and Turnover Intention scale (Bothma & Roodt, 2013). Significant positive correlation found among all subscales of prosocial behavior (Emotional behavior,  $r = .110, p < 0.05$ , Social behavior,  $r = .184, p < 0.05$ , Empathetic behavior  $r = .176, p < 0.05$ , Helping behavior  $r = .119, p < 0.05$ , Caring & Sharing behavior  $r = .111, p < 0.05$ ) and work engagement of rescue workers while significant moderating effect of social and emotional competency on the association of all subscales of prosocial behavior (Emotional behavior,  $t = 3.06, p < .002$ , Social behavior,  $t = 2.54, p < .01$ , Empathetic behavior  $t = 2.49, p < .01$ , Helping behavior  $t = 2.61, p < .009$ , Caring & Sharing behavior  $t = 2.68, p < .007$ ) and work engagement of rescue workers. Negative correlation among all subscales of prosocial behavior (Emotional behavior,  $r = -.190, p < 0.05$ , Social behavior,  $r = -.228, p < 0.05$ , Empathetic behavior  $r = -.087, p < 0.05$ , Helping behavior  $r = -.195, p < 0.05$ , Caring & Sharing behavior  $r = -.052, p < 0.05$ ) and counterproductive work behavior. Significant moderating effect of social and emotional competency was found on the association of subscales of prosocial behavior (Social behavior  $t = -2.41, p < .01$ , Helping behavior  $t = -2.69, p < .007$ ) while nonsignificant moderating effect on subscales of prosocial behavior (Emotional, Empathetic and Caring & sharing behavior) and counterproductive work behavior of rescue workers. Significant negative correlation was found among all subscales of prosocial behavior (Emotional behavior,  $r = -.026, p < 0.05$ , Social behavior,  $r = -.060, p < 0.05$ ,

**Empathetic behavior  $r = -.128, p < 0.05$ , Helping behavior  $r = -.011, p < 0.05$ , Caring & Sharing behavior  $r = -.192, p < 0.05$** ) and turnover intentions. Significant moderating effect of social and emotional competencies was found on the association of subscales of prosocial behavior (Empathetic behavior  $t = -1.97, p < .04$ ) while nonsignificant effect on the association of subscales of prosocial behavior (Emotional, Social, Helping and Caring & sharing behavior) turnover intentions of rescue workers. The important practical implication of the study is the development and validation of Prosocial Behavior Scale for Rescue Workers.

## Chapter 1

### 1. INTRODUCTION

#### 1.1. Background of the Study

Imagine yourself injured in a road traffic accident or trapped in a house fire emergency and you are crying for help. There is no trained person or no one is ready to take risk and try to save your life. You have a very short time; this is known as the golden moments of life. Your golden moments are in someone another hand. If they care you properly, they can save your life or care improperly they can spoil your life. It now depends upon the bystanders or your family members and neighbours to save your life without or with minimum risk. Someone called emergency rescue service rescue 1122 about the situation and the hazards, and a vehicle with a trained and professional crew of rescue workers arrived on the emergency spot. Do you need a person to provide you First Aid only? Are you in need of an empathetic and helping individual to help and enthuse you carefully, while giving you first aid? Your answer will be definitely the 2<sup>nd</sup> statement. Every victim of the emergency needs an empathetic, prosocial, professional and a cooperative person to help and minimize their pain and griefs.

Emergency rescue services are contributing to the society by saving their lives and promoting well-being. Emergency rescue services are playing a vital role in the health sector of our country. They are providing prehospital care in all medical cases and also responding in disaster, fire etc. In all emergency cases including accidents, cardiac arrests and fall etc, the role of first responder is very important to provide first aid and apply techniques like cardiopulmonary resuscitation (CPR) and defibrillation etc. These are the techniques which may help the victim to reach hospital (Bhanji et al., 2015). Major etiology of life threat during accidents or trauma includes airway obstruction, uncontrolled bleeding, head injury, spinal trauma etc. Initially the victim has a short time previously termed golden hour currently known is platinum ten minutes before transportation to major healthcare facility. Transportation and hospitalization within platinum ten minutes is only possible due to immediate response of the first responders. The general public and the individuals present on the spot have also the responsibility to call emergency service timely. Calling emergency services to help the victim immediately is the example of prosocial behavior (Sajithkumar & Prakash, 2016).

In our country there are many government and private organizations providing emergency services like Rescue 1122, Edhi, Red Crescent, Alkhidmat Foundation, Khidmat-e-Khalq foundation and Cheapa etc, but Rescue 1122 has got huge attention of society due to their immediate, quick and professional services. Rescue 1122 has now become the leading public sector emergency rescue service in Pakistan. Rescue 1122 responds to those all events where human life and property are at risk. The event may be natural, man-made or caused by animals. Today, in the era of technology, a lot of people are unaware to enjoy this free of cost government services. Despite of involvement in different emergencies they are also providing training opportunities to prepare youth to control the situation before arrival of the rescue team. Area of the pre-hospital emergency services are neglected in Pakistan due to limited resources till 2005 (Naseer et al., 2012).

## 1.2. Rescue Services in Pakistan

Emergency Rescue Service Rescue 1122, a public sector organization started in 2004 from Punjab under the Punjab Emergency Service Act. It was the first ever structured international standard emergency service at public sector in Pakistan. This Act was passed for saving human life and property from possible hazardous situations like road traffic accidents, bomb blast, fire, floods and medical emergencies (Imran et al., 2015; Waseem et al., 2011). Another important aspect of the said Act was to rescue people facing threat of wild animal attacks like scorpion and snakes' bites etc. Currently emergency rescue service has included internet and information technology to their service so that the people in need can be rescued firstly. Districts and regions where Rescue 1122 is operational, the people of that region are greatly satisfied and they admire their timely action and immense services (Hussain & Naz, 2015).

Use of technology make the service more approachable and feasible. Internet of Things (IoT), emergency medical services (EMS) with e-health systems and call monitoring software (CMS) are the examples of technology use and it is being used by Rescue 1122 as well to tackle precarious situations more effectively. To check and monitor mobilization of the vehicles, vehicles tracking system is also operational and it is monitored and controlled from the central district control. To reach victims of the emergency in congested territories, Punjab emergency service has started motorbike rescue service in all divisional districts of Punjab. Government of Punjab has decided to support Rescue 1122 to start air ambulance service (Hamdani et al., 2019; Waseem et al., 2011).

The province of Khyber Pakhtunkhwa is badly affected by war on terror. Due to the strategic position of Khyber Pakhtunkhwa province and having a close borderline with Afghanistan, Khyber Pakhtunkhwa is badly effected in this war on terror (Hassan et al., 2021). Due to the aforementioned situation an intense need was felt to start an emergency service to decrease physical and economical harms of the inhabitants (Imran et al., 2020). Khyber Pakhtunkhwa Emergency Service was started after the incidence of suicidal blast at Jama Masjid Pepal Mandi Peshawar, where the available agencies failed to overcome the situation and then rescue 1122 Punjab was requested for help. In this incidence dozens of innocent people were trapped under the rubbish and debris and there was no trained staff and equipment for the evacuation of these innocent victims. At the time government of Khyber Pakhtunkhwa decided to start emergency service like Rescue 1122 Punjab (Ahmad et al., 2015).

#### **1.2.1. . Establishment of Rescue Services in Khyber Pakhtunkhwa**

Emergency Rescue Service, Rescue 1122 Khyber Pakhtunkhwa was started in March 2010 from Peshawar, the capital city of Khyber Pakhtunkhwa. Approximately 400 rescuers including both official staff and operational staff was recruited, and they were sent to Punjab Emergency Services Academy Lahore for professional training. All the rescuers were passed through a specialised training including medical, disaster, fire and basic military (physical) training. After taking six months professional training from an international standard academy the rescuers were attached to different teaching hospital for another one-month special medical training. Every rescue is either fire fighter or an emergency medical technician or a station house in-charge, they are all professional with multiple skills of fire safety, medical and disaster mitigation. After completion of one month in teaching hospitals, they were now ready for a new and professional career as rescue workers. After accomplishment of the hospital training, these rescue workers were sent to the community for mapping. The aim of this mapping was to note down all prominent place of the concerned allocated area like schools, colleges, different offices or masques' etc.

Nomination of these prominent places helped to reach the victim easily within seven minutes. The basic factor behind the glory of rescue 1122 among all emergency services in Pakistan is the professional training and the 7 minutes international response time to respond all types of emergencies. After passing out from the teaching hospital these professional rescue workers were deputed in seven different regional emergency stations under the control of District Emergency Office (DEO). Well-equipped ambulances, Fire tenders, Disaster/ rescue

vehicles and water rescue van were provided to them and now they were fully equipped and ready to respond all types of emergencies in the concerned area.

### **1.2.2. Current Position of Rescue Services in Khyber Pakhtunkhwa**

Initially Rescue 1122 started its services in the form of an emergency medical service but later on after expansion and feeling of an intense need of a well-trained fire and disaster services, Rescue 1122 also started fire and disaster services. Currently Rescue 1122 is providing services in medical, fire, disaster, collapsed structure, water rescue, and road traffic accidents etc. They are dealing these emergencies on daily basis (Imran et al., 2020). Rescue 1122 is also fully involved in providing community safety trainings to prepare the community for the unwanted situations, and to benefit from the golden hours and before arrival of 1122. In case of any emergency from the mentioned areas, Rescue 1122 dispatches the concerned vehicle with trained staff to caller/ victim given address (Hamdani et al., 2019).

Emergency Rescue Service is equipped with a number of vehicles. They have different types of emergency vehicles and they are utilising it in related emergency cases. All the rescue vehicles are fully equipped with trained staff, the vehicles also contain wireless system for sharing of information and communication with control room. Wireless communication is beneficial to be in contact with central control and can share information and can demand more vehicles and staff in case needed. Selection of words during communication with community or with their colleagues is also important. Study by (Boyatzis et al., 2017) investigated the effects of humanizing and dehumanizing thing and language.

Every ambulance of Emergency Rescue Service (ERS) Rescue 1122 contains two trained emergency medical technicians and one driver, while fire vehicles and disaster vehicles having fire rescuers (fire fighters) and dirt rescuers. Emergency rescue service is providing pre-hospital ambulatory care to the victims of medical and related emergencies. In Pakistan, before the establishment of emergency rescue service, there was no public or private organization providing emergency care. There is a huge chance of permanent disability in the victims of road traffic accidents and building collapse etc, in case such injured persons are improperly handled by untrained people. A lot of victims have become disable due to mishandling in emergencies. Before this service, victims of sever road traffic accidents were mostly handled by untrained and panic relatives and bystanders (Khattak et al., 2021).

Due to interest of the current government Rescue 1122 Khyber Pakhtunkhwa has rapidly grown and the organizations is currently covering more than twenty-five districts of the province. Rescue 1122 Khyber Pakhtunkhwa is planning to expand the services to the whole province in near future. An International standard academy is under construction at Shakus District Khyber. Soon Emergency Rescue Service Rescue 1122 Khyber Pakhtunkhwa will train their staff from this academy. Currently Government of Khyber Pakhtunkhwa has also handed over all referral ambulances of the hospital to Rescue 1122. The government is also working to merge fire brigade and civil defence services in 1122.

#### **1.2.3. Details of Rescue Staff at a District**

Every district is led by a District Emergency Officer (Basic Pay Scale-18) supported by multiple positions of emergency officers in BPS-17 in administration and operation. Office assistant (BPS-16), Accountant or Account Assistant (BPS-14), store In Charge (BPS-14) and transport and maintenance in charge (BPS-16) are some positions working to deal administrative affairs of a district. Control Room in Charge (BPS-16) is another important position responsible to deal issues of district control. Computer operator receives calls in case of emergency while wireless operators communicate with the stations to dispatch emergency vehicles to the emergency spot. Each and every regional rescue office is led by Station House in Charge (BPS-16) supported by Station Coordinator (BPS-14) and Shift in Charge (BPS-12). Shift In Charge controls all shift related activities including reporting and dispatching of vehicles with concerned staff to the emergency area with full attention on medicine and other equipment etc. Lead Fire Rescuers (BPS-12), Emergency Medical Technicians (BPS-12), Fire Rescuers (BPS-11) and Dirt Rescuers (BPS-11) are all reportable to Shift in Charge. Other staff in the station include Drivers and Security Guards.

#### **1.2.4. Duties of Rescue Workers**

Rescue workers are responding to a number of unwanted scenarios where human sufferings, death and danger are waiting. It is their duty to provide medical, rescue and disaster related assistance to these people suffering or they are in situations of death and dying (Marmar et al., 2006; Regehr et al., 2003). Rescue workers are providing services to the community 24/7 in three shifts, like morning, evening and night. They are responding to critical emergencies like bomb blasts, road accidents, building fire and drowning etc. Rescue 1122 is also providing their services in case involvement of wild animals. Its natural, that sometimes wild animals enter

urban areas and there is a chance to harm human being of this area. In such cases Rescue 1122 try to capture the wild animals instead of killing or harming to them, and then they release them into their natural habitat (Rana et al., 2020).

Researchers from past few years do agree on the phenomenon that rescue workers are exposed and prone to develop work related physical and mental health issues. Working in such critical situations on daily basis are also critical to their own health (Ahmad et al., 2015). They are physically and mentally effected due which emergency service is considered the most stressful service (Halpern et al., 2009). They have a very limited time to response and provide medical assistance in a life and death condition, where their skills are being analysed by bystanders and sometimes by victim's relatives (Regehr et al., 2003). Sometimes they are confronted with unpredictable threats like contracting disease like Corona Virus Disease (COVID-19) or other contagious infections from the victims. There is also a chance of physical attack by mentally unstable, violent victims or animals sometimes. Rescue workers are facing different emotional demands from different victims in emergency situations (Sterud et al., 2006).

#### **1.2.5. Rescue Workers are Prone to Different Hazards**

In most cases they are directly involved and playing a part to rescue the victim while in some cases they are eye witness of actual death, serious injury and violence which in turn expose them for highly strong negative emotional states including fear, anxiety, lack of concentration, disturbed sleep and lack of attention (Benedek et al., 2007; Donnelly et al., 2016). One of the study on fire fighters reported high alcohol addiction suicide and divorce rate among fire fighters (North et al., 2002). Another research study reported that acute stressors are responsible for some psychological conditions among emergency and fire fighters like post-traumatic stress disorder (Javidi, 2012). Trauma is said to be the major cause of mortality and morbidity in most developed and developing countries without any discrimination. Mostly these injuries come from road traffic accidents, water drowning, history of fall, burning injuries, sexual or physical assault, violence, poisoning and war on terror etc. Trauma is responsible for 9% of deaths and threat to health globally (Sajithkumar & Prakash, 2016).

Post-traumatic stress disorder is most prevailing disorder among rescue and fire workers (Javidi, 2012). The same impacts of emotional instability are reported in nurses and doctors in the hospital emergency rooms. It also negatively affects psychological well-being of the rescue

workers. Events where rescue workers are responding are mostly unpredictable and sometime uncontrollable (Razik et al., 2013). In other words, we can say that rescue workers are prone to post traumatic stress disorder, stress and other related mental health issues. Traumatic events where rescue workers responding are unpredictable and sometime uncontrollable. Most of the duty time of rescue workers constitute to deal serious victims, death and dying. Researchers reported mild to severe level of after-affects among rescue workers (Brandt et al., 1995). Regular exposure in situation of death and dying not only affects rescue workers emotionally and psychologically but also affects their ability of dealing emergency situations (Froutan et al., 2015; Koinis et al., 2015).

Workers of armed forces working in war zone, ambulance personals, police, fire fighters and rescue workers are some groups of professionals prone to develop symptoms of post-traumatic stress disorders. Presence of post-traumatic stress disorder symptoms among rescue workers are directly associated with poor physical health, aggression, suicidal ideation and reduced quality of life (Berger et al., 2007; Creamer et al., 2011; Razik et al., 2013). The more sever they are exposed to unwanted situation like injury, the more they will experience negative emotions and feelings (Skeffington et al., 2017; Wild et al., 2016)

Another important issue reported by various studies (Aasa et al., 2005; Van der Ploeg & Kleber, 2003) is burden of work load and shift work, which make rescuers more vulnerable to develop work related negative consequences. These all mentioned consequences also negatively affect psychological wellbeing of emergency rescue workers (Frank & Ovens, 2002; Lawn et al., 2020). Some more factors like false alarms, pressure and relationship issues with spouse, colleagues and managers due to the mentioned reasons are also adding to the existing pressure they have. Regular and persistent stay of these symptoms in emergency workers leads to more chronic consequences like fatigue, high absenteeism, decrease in level of job satisfaction, high turnover intention, decrease engagement and premature retirement in some cases (Alexander & Klein, 2001).

Besides these psychological and emotional issues, there are some physical and occupational injuries reported by researchers. The most commonly occurring injuries by rescue workers are cuts, bruises, burns, thermal stress, history of fall and respiratory injuries. Exposure to fire products, physical stress, being trapped and vehicles accidents are the common causes of on duty death among rescue and fire workers. Half of the above-mentioned injuries are taking place on emergency spots. Highest number of injuries are occurring during fire, search and

rescue emergencies (Maguire et al., 2005). Collectively, the nature of rescue work, unpredictable emergency situation, uncontrollable circumstances and daily experiencing traumas are the key events behind mental, emotional and psychological injuries (Lanza et al., 2018).

According to the report of “Committee on the Future of Emergency Care in the US Health System” (2007), emergency medical service is the life-threatening and most critical constituent of US nation’s emergency and trauma care system. They are providing prehospital transportation and treatment to more than 16 million people ranging from mild fevers to enormous head injury. They are working in challenging, stressful, dangerous and mostly life-threatening circumstances. They are repeating the same international standards of receiving calls on 911, sending and dispatching of well-equipped emergency vehicles, triage, patient management and transportation of critical cases through ambulance or by air ambulance. They are taking decisions regarding critical patients and application of treatment protocols. They are involved in the situation of life and death.

The basic objective of United States Emergency Management System is to direct each and every patient to the required appropriate setting. The most important benefit of this system is to keep the specialised trauma centres and hospitals crowd free. Emergency Management System can play an important role in the establishment of well-coordinated health care system among EMS, trauma centres, community hospitals and teaching hospitals. In the United States 911 has become developed and advanced emergency care links all ill and injured Americans to the quickest emergency response through organized trauma and medical system, transport victims to a highly advanced life-saving care within minutes. Use of advanced medical equipment’s like automated external defibrillators, cardiac monitors, cardiograms and pulse oximeters and utilization of air ambulances are some modern clicks from US EMS system.

In Pakistan due to very limited resources and government funding, the organization is facing troublesome. Rescue workers in Pakistan are individuals who are trained to respond to emergency situations and provide assistance in various rescue operations. These professionals play a crucial role in saving lives, mitigating disasters, and providing essential services during times of crisis. Rescue workers of Pakistan if compared to rescue workers of other developed countries, they are facing a lot of issues like economic, security and political crisis. There is also cultural differences, which make Pakistani rescue workers more vulnerable to develop psychological issues (Khattak & Qureshi, 2020). The above-mentioned factors make rescue worker prone to get psychological issues. They are dealing considerable number of traumatic

events in routine, which in turn deteriorate their own mental health and job outcomes. Performance and satisfaction in workplace are badly affected. Psychological distress is the initial indication of burden and mental instability (Naz et al., 2011). Depression and anxiety are found most prevalent conditions in rescue workers due to their risky job nature (Papovic, 2009; Sim, 2011).

#### **1.2.6. Psychological Disorders and Rescue Workers**

According to (Yasien et al., 2016) and colleagues reported that 32.6% of rescue workers are experiencing depressive while 45.7% of rescue workers anxious from sever to extremely sever level. Rescue workers in other words are hidden victims of trauma and related conditions. Frequent exposure to occupational injuries jeopardize their social, emotional and psychological well-being (Amjad & Rafique, 2013; Martela & Ryan, 2016). Persistent psychological pressure deteriorate cognitive and behavioural abilities (Ahmad et al., 2015; Dyregrov et al., 1996). Another important thing reported by (Regehr, 2009) is that an individual having high level of empathy will be easily affected by stress and other mental health conditions. Rescue 1122 is providing their services with the collaboration of healthcare, public safety, public health, civil defence, tehsil municipal administration and local police (Hamdani et al., 2019).

Certain situations in our daily life automatically trigger our emotions to help an individual in the difficulty or crisis (Mikulincer & Shaver, 2010). Sometimes individuals in trouble are crying for help. The situations where someone need our help catch our attention and it leads to emotional triggering. We can say that emotional triggering is anything in the shape of events, memories and experiences either negative or positive, which sparks an intense emotional reaction regardless of our current mood (Baka, 2015). Sometimes emotional triggering leads to some disorders like post-traumatic stress disorder. The mentioned conditions need emotion management.

According to (Scott & Myers, 2005) emotion management among fire rescue service is necessary. Emotional complexes like sleep disturbances and lack of morale to take decision in critical circumstances. Working for a long time in such services demands special skills to cope against a wide range of robust and complex negative emotions like fear, grief, aggression, lack of decision and powerlessness (Baka, 2015). Recovery of young victims from horrific emergencies, multiple victims death, burned victims and sometimes death of colleagues in emergencies are the extreme conditions responsible for emotional fluctuation (Alexander &

Klein, 2001). Making decisions in emotionally loaded situation regarding your patient life within some precious seconds also tied with traumatic events on daily basis have sever adverse effects on rescue workers own health and well-being (De Soir et al., 2012; Scott & Myers, 2005).

We are experiencing a range of emotions like joy, pleasure, happy excitement, boredom, excitement, frustration, unease and disappointment etc. The mentioned emotional responses may lead to helping or sometime unhelpful behaviours like prosociality or aggression (Aldao et al., 2010). This state of emotions is dependent upon individual, their association with the situation and their prior experience. The emotionally intelligent and competent individuals can handle these emotionally loaded situations more efficiently. (Couper & Karimi, 2013) reported that the situation may become worse when there is shortage of staff, lack of resources, complexity of emergency, terrorist attacks, communication issues and level of stress and burnout. In these mentioned conditions it's difficult for fire rescue workers to manage emotions (Compas et al., 2017).

Rescue workers can easily manage the emotions when there is balance between work and home life. Rescue work is inherently complex and emotionally demanding (Gan et al., 2015). (Levy-Gigi et al., 2016) reported that emotional flexibility is very important for those working in fire rescue services. Emotional flexibility can save them from most of the acute psychological conditions. Emotion regulation during and after the emergency can benefit fire personals to save them from some physical, emotional and behavioural issues (Webb et al., 2012). Better and effective emotional regulation reflects better personal characteristics like perception, interpretation and response to the situation (Hughes & Evans, 2018).

Again, imagine the above mentioned two scenarios, where someone calling you for help. Perception of these situations lead to empathic thoughts, while these empathetic thoughts pull us to help the crying people. Mostly we are feeling excited while helping others but sometime we are helping others in trouble for attention seeking. Helping people in trouble, obedience and promotion of peace are some important aspects in Islam. We cannot achieve obedience through prayers only, but we will have keep and maintain a good relationship with other people of the community (Ahmed et al., 2019). People living in your neighbour have rights over you. People of your community must be treated with care, passion and enthusiasm.

All Muslim men and women living together are brothers and sisters. Being Muslim, we have clear divine and prophetic instructions and directions to help others facing troubles. Some verses from the Holy Quran regarding helping behavior. It is an important quality of an individual to be prosocial. An individual can help others by donating, supporting or volunteering in different matters of life (De Clercq et al., 2019).

### **1.3. Divine Instructions to be prosocial and help Others**

**“Help one another in acts of piety and righteousness. And do not assist each other in acts of sinfulness and transgression. And be aware of Allah. Verily, Allah is severe in punishment.”** (Quran 5:2).

Helping each other in a piety and righteousness is way we can save ourselves from God Punishment and it leads to heaven. Heaven is the ultimate goal of all Muslim’s life. Aim of our life must be the agreeableness of Allah. Never assist and help each other’s in the acts of sin and transgression, because it is way leads to hell. Hell is the name of failure and failure is seriously painful to all human beings, while help each other’s in the acts of goodness, which directly leads heaven.

**“The believing men and believing women are allies of one another. They enjoin what is right and forbid what is wrong and establish prayer and give charity and obey Allah and His Messenger. Allah will have mercy upon them, for Allah is Almighty and Wise.”** (Quran 9:71)

All men and women are brothers and sisters. Brotherhood consists of between men and women as brothers and sisters. Life with full interaction is possible only, when we are living in brotherhood and establish a helping environment. All messengers of Allah have given the said lesson and they spent their life according to divine instruction.

**“When you were seeking help (of) your Lord and He answered [to] you, “Indeed, I am going to reinforce you with a thousand of the Angels one after another.”** (Surah Al-Anfal 8:9)

The above-mentioned verse from the Holy Quran refers to an incident in the life of Prophet Muhammad (peace be upon him) during the Battle of Badr, which took place in the early years of Islam. Helping those in need and supporting those in distress is a way of thanking and praising Allah the Almighty for His blessings, and this causes the blessings of Allah the Almighty to continue and increase, as the more blessings a person is granted, the more people

need his help. Therefore, if a person praises Allah the Almighty for His blessings, they will last and, vice versa. Actually, we are not living in the world only for worships but also to work on sociality and economy. The most beloved people to Allah are one who brings most benefits to people, and the most beloved dead to Allah is making a Muslim happy, or relieving him of hardship, or paying off his debt, or warding off hunger from him. Most of the society need a collectivistic approach.

#### **1.4. Prophet Directions Regarding Prosocial Behavior**

Abu Hurairah (Radi Allahu) narrated that the Messenger of Allah (SAW) said: “Whoever relieves a Muslim of a burden from the burdens of the world, Allah will relieve him of a burden from the burdens on the Day of Judgement. And whoever helps ease a difficulty in the world, Allah will grant him ease from a difficulty in the world and in the Hereafter. And whoever covers (the faults of) a Muslim, Allah will cover (his faults) for him in the world and the Hereafter. And Allah is engaged in helping the worshipper as long as the worshipper is engaged in helping his brother” (Sahih Muslim).

This above mention hadith underscores the significance of aiding and supporting fellow Muslims and underscores the principle of reciprocation in the rewards and blessings bestowed by Allah upon those who assist others. When we alleviate the burdens and difficulties faced by our fellow Muslims, safeguard their reputation by concealing their faults, and offer them support, we can anticipate receiving similar relief and assistance from Allah, both in this life and in the Hereafter. The hadith serves as an encouragement for believers to actively engage in acts of kindness, assistance, and support, fostering unity and compassion within the Muslim community.

The Prophet Muhammad (PBUH) says that “kindness is a mark of faith, and whoever is not kind has no faith” (Narrated by Muslim).

Salim reported on the authority of his father that Allah’s Messenger said: A Muslim is the brother of a fellow-Muslim. He should neither commit oppression upon him nor ruin him, and he who meets the need of a brother, Allah would meet big needs, and he who relieved a Muslim from hardship Allah would relieve him from the hardships to which he would be put on the Day of Resurrection, and he who did not expose (the follies of a Muslim) Allah would conceal his follies on the Day of Resurrection (Sahi Muslim).

The hadith highlights the significance of brotherhood and solidarity within the Muslim community, urging Muslims to treat one another with equity, fairness, and benevolence. It enjoins Muslims to refrain from oppressing or causing harm to their fellow believers, but instead to offer assistance and support. By fulfilling the needs of fellow Muslims, alleviating their difficulties, and safeguarding their honor by concealing their faults, individuals can anticipate receiving similar treatment from Allah. The hadith serves as a reminder to Muslims about the vital importance of unity, compassion, and the preservation of each other's dignity and reputation within the Muslim community.

Living in certain community and helping one another is universal to most of the societies. Helping of community members is not only limited to the situations of trouble. Helping behaviour without organizational obligation is the prosocial behaviour. Prosocial behaviour is sometime use parallel with altruism and helping behaviour. It is the voluntary actions of someone to help and benefits others people or group of people in trouble. These actions include helping, rescuing, giving and comforting someone (Quain et al., 2016). According to (Batson & Powell, 2003) there are different types of prosocial behaviors which are related to different theoretical constructs. According to (Eisenberg et al., 1999) reported two distinct types of prosocial behavior, which are Self-sacrifice (altruism) and public pro-social behavior. They found that people in large cities are exposed and habitual to some situational and environmental emergencies and they don't care. Therefore we can observe such type of behaviors more prominent in rural areas (Eisenberg, 2002).

The concept of prosocial behavior, empathy, kindness and altruism are comprehensively discussed in literature from the last some decades. Most of the research studies are conducted in educational settings (Depow et al., 2021). Several experimental and longitudinal research studies reported close and direct link among kindness, prosociality and wellbeing (Chancellor et al., 2018; Nelson et al., 2016).

### **1.5. Theoretical Orientation of Prosocial Behaviour**

According to social learning theory by Skinner people learn from models acts, thus, prosocial behavior is a social behavior which the people can learn. Most of our acts shoots from our desires to get maximum rewards and to pay minimum costs, it is based on self-interest and self-interest has no genetic base. According to social exchange theory people help one another when the costs are underweight to rewards and no pure altruism is reported by social exchange

theory (Afolabi, 2014). Therefore, prosocial behavior can be strengthened through different activities like education, sports and experience etc. Showing prosocial behavior in certain unwanted situations depends on both individual characteristics and situational aspects. The individual characteristics are like high self-esteem while situational aspects like number of individuals on the spot (Milovanović et al., 2020).

Employee need for health and safety are two major factors necessary for the motivation and enhancing performance in the workplace. Most of the organizations are working on it by providing awareness and attachment with national and international organizations (Mushtaq et al., 2017). Rescue services need empathetic and hardworking individuals with high social and emotional competence, because they are dealing horrific and blooded emergencies on daily basis which are sometimes impossible for common person to see even (Levy et al., 2019). Therefore, individuals who have the ability to readily adjust and cope can perform more bitterly. We can say that rescue workers can benefit community by showing prosocial behaviour with their job responsibilities. Rescue workers must have qualities to communicate efficiently, clinically skilful, feeling comfortable to work in groups and also well versed in critical thinking and decision making (AlShammari et al., 2018).

Like in the first paragraph it is already mentioned that we must need rescue workers who are skilful, intelligent and competent in their work but they must be empathetic and enthusiastic in their duty. Emergency Rescue Service Rescue 1122 is an organization providing help and services almost in every emergency including medical (heart attack, snake bite and respiratory arrests etc), fall, burns, fire, disasters of all types, drowning (water rescue) cases. They are not only working to protect human beings but they are also working for the protection of environment and property (Munawar & Sohail, 2017). They are mobilized, when they are called to save wild life or even fire on high mountains (Amin, 2018; Waseem et al., 2011).

### **1.6. Job Outcomes**

Job outcomes in the rescue department refer to the potential career paths and employment opportunities that individuals can pursue after completing relevant education and training programs. These outcomes are influenced by factors such as the specific area of rescue specialization (e.g., firefighting, search and rescue, emergency medical services), the level of certification and experience attained, the demand for rescue professionals in the region, and the overall economic conditions. Job outcomes of the rescue workers are different from other

departments because their work environment is totally different. They are responding to horrific fire, medical, and other emergencies on daily basis. Sometimes they are collecting only pieces of human bodies like in the bomb blasts and road traffic accidents. Sometimes these conditions negatively affect their overall performance and disturb their job outcomes (Amin, 2018). Responding to emotionally loaded situations frequently it is assumed that they will feel troubles in engagement to their work. It is also assumed that due to increased internal workplace stress they will be more counterproductive and there will be a chance of more turnover and less retention at work.

The organization has also a transparent and clear policy for the personal safety and health of its employees. They have prepared standard operating procedures for the rescue workers to use personal protective equipment according to the nature of the emergency. Usability and availability of Personal Protective Equipment (PPE) is the utmost responsibility of the organization to minimize risk during high attention seeking situations. They are always working on safety first. A single rescue worker can save more than one but an untrained bystander cannot save a single rescue worker. The organization has also a close link with different public sector hospitals to provide free medical facilities to the employees and their families (Waseem et al., 2011).

### **1.7. Social and Emotional Competence in Rescue Workers**

Social and emotional competence plays a vital role in ensuring the well-being and effectiveness of rescue workers. These dedicated professionals frequently find themselves in demanding and emotionally intense situations, where their capacity to regulate their emotions and engage in effective interpersonal interactions is of utmost importance. Social and emotional competence refers to a set of skills, attitudes, and behaviors that enable individuals to navigate social interactions effectively, manage their emotions, and maintain positive relationships with others. Types of social and emotional competence include Self-awareness, emotional regulation, empathy and compassion, effective communication, team work, collaboration, Resilience and self-care.

### **1.8. Problem Statement**

Despite the critical role of rescue workers in responding to emergencies and providing assistance to individuals in distress, there is a lack of comprehensive understanding regarding the impact of their prosocial behavior on job outcomes. Additionally, limited research has explored the potential moderating role of social and emotional competence in shaping the relationship between rescue workers' prosocial behavior and their job outcomes. Prosocial behavior in rescue workers and emergency rescue services in Pakistan are both newly introduced areas in the social sciences research and they are less understood. The current state of knowledge and research pertaining to the impact of rescue workers' prosocial behavior on their job outcomes, as well as the moderating role of social and emotional competence, is limited. These areas require comprehensive exploration from various perspectives, incorporating different variables and measures. Prosocial behavior, encompassing actions that benefit others or society as a whole without expecting reciprocation, encompasses behaviors such as helping, sharing, caring, and cooperating. Meanwhile, job outcomes encompass important factors like employee work engagement, counterproductive work behavior, and turnover intentions, which are specifically examined in this research study.

On the basis of reviewed literature, it was assumed to examine the impact of rescue workers prosocial behavior on their job outcomes including both positive and negative outcomes, and also to determine the moderating role of social and emotional competence. Addressing this problem can help to improve the different job outcomes of rescue workers and it may enhance the quality and delivery of emergency response and services they are providing to the general public in the society. Therefore, this study aims to investigate the effect of rescue workers' prosocial behavior on their job outcomes, while examining the moderating role of social and emotional competence. By filling this research gap, insights can be gained to enhance the effectiveness of rescue workers' interventions and support their well-being, ultimately improving emergency response systems and the overall quality of care provided to individuals in need.

### **1.9. Significance of the Study**

The present study was conducted in an organizational setting to explore the effect of prosocial behavior on rescue workers job outcomes. A combination of both positive and negative outcomes of the employees working in emergency rescue service Rescue 1122 were investigated. Like other communities of the world Pakistan has neglected this area of pre-hospital emergency service due to some situational, environmental and especially economic issues. But this gap was filled after establishment of emergency rescue service rescue 1122 Punjab started from historic city Lahore (Imran et al., 2015).

Emergency rescue service rescue 1122 is a government organization working for the safety of both humanity and ecology. All types of medical, disaster, road traffic accidents, bomb blasts, fire and earthquakes come under their control. They fight against flames of fire either on vehicles, homes or on the top of mountain. Every human in the situation of pain need help from the fellow society members. These dying and crying scenes automatically triggers our emotions to prepare us for fight or flight type response. We frequently observe that some of the people readily rushed to the incidence place to help the individual in crises.

Earlier researchers reported high suicide rate, high turnover intentions and counterproductive behaviors in professional fire services. They are facing sleep issues, stress disorders and interrupted decision making due to responding traumatic events on daily basis. Their field duty is full of emotional scenes. Emotions are considered barriers in the process of decision making while working in the field (Evans & Steptoe-Warren, 2019; Scott & Myers, 2005). Parallel to the above researcher statements some time the fire/rescue workers are faced with the state of negative emotions like powerlessness, frustration, aggression, fear due to the scenes of death and dying (De Soir et al., 2012).

Sometimes they are confronted with multiple deaths and burning of victims like in terrorist activities. It's very hard to see and tolerate these situations for a every individual. These are the rescue workers who are responding to save those in troubles. They are controlling their own emotions in the field but these emotions bursts others time. States of over empathy and emotional overburden is associated with negative health consequences like fatigue and psychological distress and it negatively effects their overall wellbeing (Hamilton-West et al., 2019; Miller et al., 2022).

Rescue workers in Pakistan are confronted to different psychological correlates like stress, anxiety and depression due limited resources, daily witness of different traumatic events. These psychological issues negatively effects their performance and satisfaction (Ahmad et al., 2015). Therefore rescue services are considered the most stressful services over the world (Pawlowski et al., 2018). Responding to such traumatic scenarios are included in their routine work which in turn effects them negatively. They are physical and emotionally vulnerable to adopt the effects of these traumatic events (Rowntree et al., 2015).

The current study is from the initial steps to explore prosociality in rescue workers, and then their relationship to different job outcomes including work engagement, counterproductive work behavior and turnover intentions. Another important thing while conducting this study was the internal working environment of emergency rescue service, which is totally different from other organizations like banks and education etc. Skilled trainings, continuous professional development courses and psychological services can play a role. Rescue workers are not facing emotional issues in the workplace only, they are also confronted to stress outside work (Morren et al., 2005). Multiple job roles and shift patterns are also other contributing factors. They also effects family and peer relationship, therefore high separation ratio is reported in fire fighters. This stressful work environment is responsible for social and marital issues (Amin, 2018; Strazdins et al., 2006)

On the mentioned ground the rescue workers are prone and highly vulnerable to stress and negatively affected job outcomes. Emotionally and socially competent individuals can play a better role as professional rescue workers. The current study will help to encircle all the above-mentioned variables to suggest some good recommendations for emergency rescue service. Rescue workers need psychological assessment and diagnosis on regular basis to minimize risks of psychological disorders like acute stress, post-traumatic stress, anxiety and depression etc. The rescue workers also need standard and modern medical, fire and water rescue equipment's. use of standard and modern equipment minimizes the risk of rescue workers life threats. The current study will also pave way to future researchers to work on emergency rescue services with other variables.

#### **1.10. Objectives of the Study**

1. To develop and validated prosocial behavior scale for rescue workers.
2. To check the relationship between rescue workers prosocial behavior and different job outcomes including work engagement, counterproductive work behavior and turnover intention.
3. To identify the moderating role of social and emotional competencies on rescue workers prosocial behavior (all sub-variables) and work engagement of rescue workers.
4. To find out the moderating role of social and emotional competencies on rescue workers prosocial behavior (all sub-variables) and counterproductive work behavior of rescue workers.
5. To explore the moderating role of social and emotional competencies on rescue workers emotional behavior (all sub-variables) and turnover intention of rescue workers.

### **1.11. Hypotheses**

**H1.** There is a positive Correlation among all sub-scales of prosocial behavior and employee work engagement.

**H2.** There is a negative Correlation among all sub-scales of prosocial behavior and Counterproductive work behavior.

**H3.** There is a negative Correlation among all sub-scales of prosocial behavior and Turnover Intentions.

**H4.** Social and emotional competence moderates the association between emotional behavior and employee work engagement.

**H5.** Social and Emotional competence moderates the association of social behavior and employee work engagement.

**H6.** Social and Emotional competence has a moderating effect on the association of Empathetic behavior and employee work engagement.

**H7.** Social and Emotional competence is moderating the association of Helping behavior and employee work engagement.

**H8.** Social and Emotional competence moderates the association of Caring & Sharing behavior and employee work engagement.

**H9.** Social and Emotional competence has a moderating effect on the association of emotional behavior and counterproductive work behavior.

**H10.** Social and Emotional competence is moderating the association of social behavior and counterproductive work behavior.

**H11.** Social and Emotional competence has a moderating effect on the association of empathetic behavior and counterproductive work behavior.

**H12.** Social and Emotional competence moderates the association of helping behavior and counterproductive work behavior.

**H13.** Social and Emotional competence has a moderating effect on the association of caring & sharing behavior and counterproductive work behavior.

**H14.** Social and Emotional competence has a moderating influence upon the association of emotional behavior and rescue workers turnover intentions.

**H15.** The impact of social behavior on rescue workers' turnover intentions is influenced by their level of social and emotional competence.

**H16.** Social and Emotional competence is moderating the association of empathetic behavior and rescue workers turnover intentions.

**H17.** Social and Emotional competence has a moderating effect on the association of helping behavior and rescue workers turnover intentions.

**H18.** Social and emotional competence moderates the association between caring and sharing behavior and rescue workers' turnover intentions.

### **1.12. Delimitations of the Study**

1. First, every research study has some limitations. This research study is also not free from limitation. Primary data for the current research was collected through self-administered questionnaires from a single source (the operational rescue workers). Therefore, in future data from those rescue workers working in the offices may be collected and analyzed.
2. Second, this research is also limited in methodology concerns. In this research, effects of rescue workers prosocial behavior were investigated on different job outcomes including employee work engagement, counterproductive work behavior and turnover intentions moderated by social and emotional competence by using correlational and cross-sectional research design. Cross-sectional research designs lack to investigate cause and effect relationship among variables. In order to know cause and effect relationship, experimental researches are needed to be conducted on rescue workers.
3. Third, convenient sampling was used to collect data from the operational rescue workers of emergency rescue service rescue 1122 District Peshawar, Kohat, Hangu and Karak of Khyber Pakhtunkhwa only. Findings of this research study may not be representative of those rescue workers working in different districts of Punjab, Gilgit Baltistan, Sind and Baluchistan. Studies may be required to check results of those rescue workers working in other provinces and also those working in other related organizations like Police and Armed Forces etc.
4. Fourth, data for the current research was taken from emergency rescue service rescue 1122 Khyber Pakhtunkhwa, however there are some other departments also working to tackle emergency situations like all Armed forces (Army, Navy & Air Force) police, Fire Brigade and Civil Defense etc. Research studies are needed to be conducted on those organizations and the results may be correlated.

**Chapter 2****2. LITERATURE REVIEW**

In this section of research, the researchers are working to build foundation for their study. They are searching the gap between the knowledge by taking the snap shots of earlier researchers. Citation from earlier researches helps us to create better connection between the current and other research studies.

**2.1. Prosocial Behavior**

Prosocial behaviour, helping behaviour and altruism are some related terms, which are used frequently in social science. They all are used interchangeably. To define these terms, we have to look very closely. Helping is not considered by some social scientists as prosocial behaviour. Helping behaviours refers to those actions intended to improve situation of help recipient. Prosociality is narrower as compare to helping behaviour. It refers to “an individual voluntary behavior intended to help and benefit others and minimize aggression and antisocial behaviour. It is the act of benefiting others not the self (Martí-Vilar et al., 2019; Penner et al., 2005).

Prosociality is a planned or sometimes conducted actions or behaviors to help other people without concerning with the helper's motives (Afolabi, 2014). It is due to altruistic motives, motivated by an individual's self-interest. Prosociality is taking place without expecting something in return, but it need the involvement of assistance and attention towards other people (Afolabi, 2013; Sajithkumar & Prakash, 2016). Naturally, prosociality generates due to positive motives and experiences. Sometimes prosocial behaviors are taking place when people consider helping of others as their moral duty (Aydinli et al., 2013).

The effects of prosocial behaviour may be beneficial to the society. Social responsibility and prosociality is necessary for a social and productive life in the society which is directly linked to satisfaction in life (Dou et al., 2019; Eisenberger et al., 2001; Gino et al., 2011). Various studies reported association among prosocial behaviour, helping, comforting and prosocial spending (Martin & Huebner, 2007; Yang et al., 2017). Attention assistance or devotion like love and loyalty without expecting something are prosocial activities necessary to produce prosocial actions.

One of the research studies associate these qualities with religion and spirituality. Religious people are said to be more prosocial as compared to non-religious people. Results of this study is based on field experiment and they investigated the association of religiosity, life satisfaction and social exclusion. According to them people with high level of life satisfaction and perceived social exclusion are said to be prosocial to help other people (Afolabi, 2014; Grossman & Parrett, 2011). (Einolf, 2011) examined the link of religious values with prosocial motivation.

Prosociality is also involved in our daily activities like donations, charity work, community or social services, working in teams specially in organizational setup and volunteer participation in activities of applied research and medical trials. Research and medical trials include the activities which are directly applicable to human beings like proving of vaccination or certain newly formulated medication (Meier, 2007). (Lay & Hoppmann, 2015) reported that there are many ways where we can show prosociality. These ways ranges from small acts of kindness to major events like helping someone in a rush to proceed them towards cashier counter or volunteering for an organization working for charity or just looking after someone but there is also a chance that motivation behind prosocial behaviours may change with changes in life and age (Sze et al., 2012).

### **2.1.1. Prosociality an Automatic Process**

Prosociality is an automatic behavioural process while deliberate actions are related to payoff maximizing behaviour. Prosociality related domains are cooperation, honesty and altruism (Penner et al., 2005; Rand, 2016). Self-control and emotional competence are necessary for prosocial practices. Prosocial behaviours requires the knowledge of social values and norms (Baumeister et al., 2007; Tangney et al., 2018). Prosociality is needed for better relation engagement in the society and it is also said to be a best tool to avoid and relieve negative feelings. Prosocial behaviour is also a significant source pleasure and happiness in life (Sonnentag & Grant, 2012; Yang et al., 2017).

According to social psychological theories there are two types of forces or motivation behind prosocial behaviour, these altruism and egoism. Altruistic motivation pulls us to without expecting something. It is an individual's genuine desire, there no chance of reward in retaliation. Empirical researchers are needed to be conducted to investigate existence of pure altruistic behaviours. Some of the researchers are binding altruism with egoism, that both are

required for helping behaviour (Feigin et al., 2014). They don't have the ability to see someone in trouble feeling sad, guilt or anxious. They have the desire to feel good and improve their social standard (Penner et al., 2005).

Organizational and professional obligations or job role requirements are not included in prosociality. If someone help due to the mentioned obligations it will be the helping behaviour. According to another domain of the prosociality sometime an individual working in charity or in some organizations working for the promotion of human well-being, it is included in prosociality, such organizations include Red Cross, 911 and 1122 etc. The ultimate goal of these organizations is to the promotion of human well-being in need (Martela & Ryan, 2016). Most of us have an experience of floods, major road traffic accidents, tsunami, earthquake and terrorists activities, where the above mentioned organizations are providing help to the effected community (Frazier et al., 2013).

Individual differences play a role as every individual is fundamentally different from others in expression of emotions, controlling emotions and willingness to come forward and help others in trouble (Batson & Powell, 2003). Another important, nearest and related term is altruism, it refers to prosocial behaviour having ultimate goal benefiting others. The most important thing included in altruism is that the helping individual receive social approval or it may decrease the distress of the helper, which they are feeling when seen someone in trouble or an emergency, crying for help.

There are two types of altruistic behaviours 1<sup>st</sup> pseudo-altruistic behaviour also known as selfishly motivated and 2<sup>nd</sup> altruistic behaviour also known as selflessly motivated (Batson, 2010). These behaviours are concern with morality and egoism, which stops or pulls individuals towards welfare of others (Carlo & Randall, 2002; Farsides, 2007). It is important to note that altruistic behaviours must be beneficial for others, it must be voluntary in nature (Mallén et al., 2015). In other words, the ultimate goal must be to benefit others, without expectation of external reward. Like this prosocial behaviour is also based upon selfish and selfless motivations (Batson et al., 1981). Altruism in psychology is a motivational state significantly associated with empathetic concern leads to improved others welfare without rewards or interest (Batson, 2010). In most of the scenarios we can say that empathy leads to probable prosociality while empathy permit us to see the world from someone others perspectives (Hewstone et al., 2012; Rodriguez et al., 2021).

### **2.1.2. Prosociality in the Workplace**

Prosocial behaviour in organizational setup is less researched and studied topic in organizational psychology or social sciences. In organizational setup it is conventionally operationalized as organizational citizenship behaviour good citizenship behaviors or extra role behaviors in the workplace or organization (Mitonga-Monga & Cilliers, 2016; Zellars et al., 2002). Prosocial behaviour in the workplace is associated with the phenomenon of socially desirable behaviour. All good works which benefits someone in the organizational boundary manifest as prosocial behavior. These actions are necessary for the creation of cooperative and coordinative organizational setup which leads to an inspirational organizational environment (Axelsson & Axelsson, 2009; Clarkson, 2014).

Prosociality in the organization is necessary for the development and long-term sustainability of all organizations. Creation and development of such type of environment depends upon the management and leadership. Altruistic organizational environment in the organization can be created by motivate and nurturing the employees to work for the benefits of others (Furnham et al., 2016; Mallén et al., 2015). We can associate these lines with the slogan of rescue 1122 employees “Live for others” it is completely true because their death is either in road traffic accidents while on the way to save someone.

According to (Clarkson, 2014) prosociality in the organization develops and encourages collectivism. Collectivism on other ways promotes some more prosocial behaviors. Collectivistic approach within the organization generates altruistic leaders which in turns have the ability to practice prosocial behaviors in the organizations. Organizational long term sustainability is possible through the mentioned practices by the managers and leaders (Vieweg, 2018). It looks like demand of the organization or it varies culturally that employee should behave prosocially because its needed. Researchers found some important consequences of prosocial behaviour in the workplace. High prosociality leads to improved communication, high job satisfaction and improved client satisfaction. These mentioned consequences are directly linked to organizational development and efficiency.

On the other hand, antisocial behaviour is associated with negative consequences like poor decision making, inefficiency, decreased job satisfaction and ineffective employee performance. These consequences results due to conflict between individual behavioural consideration and organizational demands (Vardi & Weitz, 2003). (Mitonga-Monga & Cilliers,

2016) reported five different types of prosocial behaviors related to the workplace. These are altruistic helping, conscientiousness, courtesy, sportsmanship and civic virtue. Altruistic helping is related to employee's willingness to help their co-workers at the time of facing some challenges and when they are under heavy workload etc.

Conscientiousness is related to high job commitments, efficiency and accuracy in the job, while courtesy relates to the employee quality of respect and be careful of others' rights and to avoid conflicts. Sportsmanship is totally concerned with making and maintenance of strong relationship with co-workers, while civic virtue is the behavior in which the employee goes beyond their job roles and they are also fully involved in voluntary activities.

### **2.1.3. Prosocial Behaviour Versus Organizational Citizenship Behaviour**

Prosocial behavior in the workplace is the term used for organizational citizenship behavior. Prosociality is the act of helping others (Kjeldsen & Andersen, 2013; Mitonga-Monga & Cilliers, 2016). Organizational citizenship behavior in certain organization is helping someone or willingness to cooperate someone in your organization. It is known as the non-formal employee behavior which is performed beyond the routine duty to benefit the colleagues or organization.

Altruistic behavior is found to be the part of organizational citizenship behavior. (Chughtai & Zafar, 2006) reported that enhanced organizational citizenship behavior leads to low absenteeism and turnover intentions. Organizational citizenship behavior makes the employees more self-directed and goal oriented. The organizations must try to promote such behavior because it works like a tool in the development of the organizations. Management costs can be lower down due to helping co-employees. The organizations can save time and resources by utilising the organizational citizenship behavior among the employees (Dixit & Singh, 2019).

Prosocial behaviour is not only beneficial to helped individual but it is also beneficial to the person who helped by reducing stress and mood regulation of altruistic behaviour (Bülbül, 2014). Prosocial employee having characteristics of self-regulation, goal directedness, self-motivated and they have focus on the outcomes after accomplishment of helping and benefiting others. Prosociality in someone need freedom in self-regulation which is necessary for helping others and accomplishing the assigned tasks (Gagné & Deci, 2005). Highly motivated and

prosocial workers believe that work accomplishment and target achieving has for both job requirements and benefiting others in need.

Prosocial and motivated employee love to work in groups, their immediate concern is to make an easy way for those in trouble. Working in groups introduce them to others and they are able to gain relational knowledge. They share skills and knowledge with others to promote better workplace environment. Sharing of skills and knowledge enhances their cognitive abilities and functioning (Grant, 2007; Hu & Liden, 2015).

According to (Grant, 2008) employees prosociality is a precious asset for organization which means that the employees are desirable to helping others. Employees prosociality have a positive impact on some job outcomes like organizational citizenship behaviours, job satisfaction, employee performance and employee commitment but these all-positive job outcomes are linked with supportive working environment. Without supportive work environment the employees are unable to enjoy prosocial motivation and positive job outcomes but there will be an increase in some negative job outcomes like turnover intention etc (Grant & Mayer, 2009; Grant & Sumanth, 2009; Shao et al., 2017).

Prosocial motivation is currently studied by the researchers in the field of applied or positive psychology due to their beneficial nature. Like prosociality is directly related to employee performance, working consistency, enhanced productivity and extra role activities (Grant, (2012); Grant et al., 2007). Attitudes of prosociality helps employees to perform better in teamwork. Prosocial employees are influential for their colleagues (Abid et al., 2018). Employees of prosocial attitudes are in search to finding ways to take initiative and they are capable of creative mind (De Dreu & Nauta, 2009). They have an urge to complete the task in time, perform better and they are highly motivated to achieve the excellency (Grant, 2008).

It now depends upon the managers and leaders to make a supportive work environment and develops prosociality among their subordinates. It will provide them an opportunity to enjoy positive and avoid negative job outcomes. Regular assessment of workplace environment will be required. Development of the organization is positively linked with employees satisfaction, commitment and engagement (Javed & Tariq, 2015). Different factors are responsible for prosocial motivation and positive job outcomes among employees, that include attractive job description (duties), identical tasks, job role autonomy, interdependence, friendship opportunities, opportunity to interact with colleagues, cooperation and coordination.

These factors will pull the employee to help others and also participates in volunteering activities (Grant, 2007; Shao et al., 2017).

#### 2.1.4. Theories of Prosocial Behaviour in Workplace

Several theories are suggested to define human prosociality (Bülbül, 2014). Social learning theory links human prosociality to human learning, values, norms and social life settings. According to this theory people in certain society learns from models, attitudes, behaviour and acts of others living in a community (Bandura & Walters, 1977). Like this prosocial behaviour can also be learnt by the people and it can be strengthened by different learning activities like formal and informal education, play and sports activities, experience and even we can learn while setting in community centres with senior citizens (Bandura, 2001b). Showing prosocial behaviour in certain unwanted situations like accidents, floods or blasts, it depends upon both individual characteristics and situational aspects. The individual characteristics are like high self-esteem, emotional stability, social competence and highly enthusiastic, while situational aspects like number of individuals on the spot or number of individuals trapped or crying for help (Milovanović et al., 2020).

Another commonly considered approach, while defining prosocial behaviour is the social exchange theory. According to this theory all types of social exchanges can be understood with an economic utilitarian perspective (Cropanzano & Mitchell, 2005). All the human beings helping one another in emergency or in a job having two motives like economic help or help exchange in future. A group of people living to make certain community, and it is very difficult to live alone. Social exchange theory suggests that individuals engage in prosocial behavior in the workplace when they perceive that the benefits of helping outweigh the costs (Lawler & Yoon, 1996). Employees may engage in helpful behaviors because they expect reciprocal favours, rewards, or recognition in return. This theory implies that employees are motivated to engage in prosocial behavior when they believe it will lead to positive outcomes for themselves, such as improved relationships, enhanced reputation, or career advancement (Molm et al., 2007).

Another theory related to prosocial behavior in the workplace is the Organizational Support Theory. According to organizational support theory, employees are more likely to engage in prosocial behavior when they perceive that their organization values and supports their well-being. When employees feel supported by their organization through fair treatment,

TH-26005

recognition, and a positive work environment, they develop a sense of reciprocity and are more motivated to engage in behaviors that benefit the organization and their colleagues (Chen et al., 2009). Employees who perceive a high level of organizational support are more likely to engage in acts of helping, sharing knowledge, and supporting their co-workers. Norms and social identity theory is also related to prosociality in workplace (Chancellor et al., 2018). The theory proposes that employees' prosocial behavior in the workplace is influenced by social norms and their identification with a particular group (Kurtessis et al., 2017). If the organizational culture and norms promote and reward prosocial behavior, employees are more likely to engage in such behaviors. Additionally, when employees strongly identify with their organization or workgroup, they are more motivated to conform to the group's norms and values, including prosocial behavior. In this context, employees engage in helpful actions to maintain a positive group identity and fulfil the expectations of their workgroup (Rhoades & Eisenberger, 2002).

Therefore, all the community members need involvement in certain activities that can benefit them in future and also make their life pleasurable and easy. There are some motives behind human prosociality (Alessandri et al., 2014). Batson identifies four basic types motivations, which pulls an individual to work prosocially. These motivations are egoism, altruism, collectivism and principlism. These motivation pulls someone in a combination or alone to work prosocially (Batson, 2011). Prosocial motivations are those desires an individual have, to help and influence others in trouble or need (Castanheira et al., 2016; Kjeldsen & Andersen, 2013). Actually motivation is psychological process which directs, boost and sustain behaviours (Latham & Pinder, 2005), while prosocial motives are related to some situational forces which impelled us to help and work. The current study is also a trial to know about these motives and forces which impelled the rescue workers to help beyond their job requirements.

Literature shows that prosocial and motivated employees have the capability to stay long, enhanced performance and increase productivity due to high level of dedication, commitment and engagement with the organization. These prosocially motivated employees are able to accept tackle negative feedback (Meglino & Korsgaard, 2004; Thompson & Bunderson, 2003). Positive job outcomes among these employees like decrease turnover intention, enhanced performance and productivity is not limited to a single role or task (Grant et al., 2007). One of another research study by (Grant, 2008) reported that the above mentioned job outcomes are obtained, if it is accompanied with intrinsic motivation among employees. It was believed that incentives, rewards, punishment and external controls are some important factors

needed for employee motivation, decrease turnover intention, enhanced performance and productivity.

Motivated employees paved their way towards the ultimate goal by using and utilizing the available resources rather disliking and abhorrence from the workplace (Steers et al., 2004). Intrinsic motivation is a personality trait and prosocially motivated employees are always careful to the cultural values of others, who are benefited. As a psychological phenomenon, prosocial motivation has an ultimate goal to protect others and promote welfare of others (Grant, 2007). The goal will be achieved, when there is strong association and coordination among employees. This factor is not limited to organizational psychology but it also prevalent in social psychology. Prosociality, empathy and altruistic activities are possible when there is association and coordination among inhabitants of certain society (Aknin et al., 2015).

#### **2.1.5. Prosociality in Emergency Situations**

Healthcare workers or those working in emergency situations either doctors or paramedics are reported intrinsically motivated and they are found involved in activities directly related to prosocial behavior like professionalism, esteem, sharing and caring (Brock et al., 2016; Das et al., 2008). Number of researchers reported the association between high level of prosocial motivation and high quality of care of care among healthcare professionals (Delfgaauw, 2007; Kolstad, 2013; Prendergast, 2007; Serra et al., 2011).

There are number of studies on helping in emergency situations. According to (Darley & Latané, 1968) willingness to help and intervene in troubled situations is higher when an individual (bystander) is alone. If there is a large number of bystanders, there will be less willingness to help. If there is number of bystanders, they all are witness and aware of the situation. Everyone will think that someone may help or intervene. This awareness is the basis of diffusion of responsibility.

All bystanders are thinking, that it is not my responsibility to work or help to tackle the emergency situation, but all the bystanders are responsible to accomplish the emergency situation. This divides responsibility and reduces helpfulness. Therefore, we can say that number of bystanders in emergency increases, the willingness to help will be decreases. In case of single individual, the bystanders will feel that overall responsibility of helping the person in crises is focused on him or her. Diffusion of responsibility is a cognitive judgement which divides responsibility among all the existing bystanders. As a consequence, each individual

member in the group feels less responsible than when alone. When there are several bystanders present in an emergency, the responsibility of any one of the bystanders is reduced.

Diffusion of responsibility, implicit modelling of nothing has happened and fear of embarrassment are the factors responsible for decrease in willingness to help in group. Research by (Twenge et al., 2007) reported that people living in rural communities are found to be more prosocial as compare to people living in urban societies. People from rural settings are found to be more trustworthy and more neighbourly. They consider it their responsibility to help others in trouble while people living in cities are not accepting this responsibility. Size of population works as a determinant in prosociality (Aronson, 2010). Cultural differences are also responsible for prosociality. Individualistic and collectivistic approaches are said to be responsible for level of prosocial behaviour (Donaldson et al., 2011).

#### **2.1.6. Prosociality in Children**

Prosocial behaviour is evident in children but changes in frequency are reported with age (Eisenberg, 1992). Examples of prosocial behavior include helping, sharing, cooperation, coordination, comforting, rescuing someone, donation of blood, money, volunteering and complementing. Donation of money to charity is the example from our daily life (Batson & Powell, 2003; Sharifian, 2008; Weinstein & Ryan, 2010). Why someone help others? There are three important reasons behind someone prosocial behavior. 1<sup>st</sup> the individuals help others to get something in return, 2<sup>nd</sup> helping others due to sympathy and moral principles, 3<sup>rd</sup> prosocial behavior that is not performed for material or social rewards but for moral values which is known as "altruism" (Eisenberg, 1992; Penner et al., 2005).

Emotions play an important role while working on prosocial behaviour. Prosocial development contains both biological and environmental perspectives related to the origin of emotions. Prosocial development of adolescents can be shaped positively, negatively, increased or decreased through adults' actions. Studies on prosociality among children suggested that young children display a variety of prosocial behaviours in the form sharing things, helping peers and friends and comforting them. These behaviours are not limited to friends and peers but it is also for strangers without expecting reward (Warneken & Tomasello, 2009). Some of the studies on prosociality in children reported about the contribution of both parents and children relationship and their association with prosocial behaviour among children and adolescents (Dunn, 2013; Yoo et al., 2013).

Some of the studies on prosocial behaviour among children also reported significant association between playing violent video games and prosociality (Bushman & Anderson, 2009; Carnagey et al., 2007). Role of socialization agents like parents, peers, teachers, siblings, society and environment in the development of prosocial behaviour is evident. Prosocial behaviour in childhood often begins with questions of sharing and fairness. Socialization processes reveal cultural differences which is responsible for an individual's prosocial motivation (Gupta & Thapliyal, 2015).

#### **2.1.7. Prosocial behaviour and Human Personality**

There are a lot of factors including traits, motives and types of interests behind prosocial motivation in some specific situations, psychological rewards and costs (Jung et al., 2020; Thielmann et al., 2020). Personality is considered an individual inner feature which help them constructing mood, attitude, beliefs and behaviour (Liao et al., 2022; Righetti et al., 2020). Personality traits like agreeableness and conscientiousness have close association with adolescents prosociality. Prosocial behaviour boosts helpfulness and cooperative performance in the work place, which is closely associated with agreeableness (Amani, 2022; Tariq & Naqvi, 2020).

According to (Gray, 2010) doing good or evil in daily life activities leading to people sense of strength, well-being and capacity of self-control. Doing good is increasing people strength and ability of self-control while doing evil increasing sense of guilt in people (Bolino & Grant, 2016). The study also investigated positive effects of prosocial behavior on people overall behavioral measures. All benevolent acts including prosocial spending and donations are directly linked to high meaningful experiences, well-being and high vitality. Greater satisfaction was found among people who recently donated (Aknin et al., 2013).

Most of researchers are agree that children display some stable differences in prosocial tendencies. These tendencies are relatively stable across the whole life. Research studies reported that there is a consistence and long-term consistency in temperament and personality in general (Caspi et al., 2003). According to (Penner et al., 2005) they found two important factors relevant to prosocial personality. The first factor is concerned with prosocial thoughts and feelings including sense of responsibility and a tendency to enjoy both cognitive and affective sense of empathy, while second factors is related to individual's self-perception of helpfulness (Liao et al., 2022).

Some research studies reported significant positive relationship between cluster of prosocial disposition and prosocial actions. These prosocial disposition include interpersonal helping leads to volunteering to helpful behaviour (Chow et al., 2013). The helpful behaviour in the organization can facilitate co-workers and also help to establish a stable workplace environment (Borman et al., 2001; Eisenberg, 2002; Penner, 2002).

### **2.1.8. Prosocial Behaviour and Employee Engagement**

Prosocial Behaviour among employees working in certain organization create highly social and helpful environment, which in turns promotes cooperation among them and sharing of important information. The employees learn new skills and update their knowledge which is impossible while working alone (Schaufeli, 2012). High prosociality generate better outcome for both co-workers and organization. Workers with prosocial motivation have an encouraging influence on their contemporaries. They are found creative, hardworking and always engage to roll out better ways of helping others. Researchers have found positive association among prosociality, engagement, work intensity and employee commitment (Liao et al., 2013; Liao et al., 2022).

Importantly they are taking initiative in all challenging situations persistently and most of the successfully completing the tasks (Grant, 2007). According to (Bakker & Demerouti, 2007) unlimited job resources are producing engaged helping employees and in turn both are required to increase overall organizational development. Researchers previously worked on employee engagement and prosociality have reported positive relationship. Work engagement is also positively correlated with different job resources like job freedom, job description, types of skills, task identity, supervisor support and overall workplace environment (Bakker et al., 2011; Schaufeli et al., 2009).

Prosocially motivated employees are found punctual, hard worker and they are accepting different challenges. They are also found motivated, emotionally stable and enthusiastic to accomplish their tasks and get targets by caring their colleagues and sharing knowledge and skills with other team members. They are found technical and creative mind in solving different issues and problems while working in the workplace (Abid et al., 2018; Eldor, 2017; Frazier & Tupper, 2018; Shao et al., 2017). According to (Spreitzer et al., 2005) and colleagues, prosocially motivated employees make a forward moment by sharing knowledge and skills to benefits their team members. Due to continuous process of caring and sharing in the workplace

their colleagues are becoming more energetic, engaged and committed, their performance is also enhanced (Carmeli & Spreitzer, 2009; Wallace et al., 2016).

#### **2.1.9. Prosocial Behaviour and Counterproductive Work Behaviour**

Counterproductive behaviour has become an issue for most organizations either private or public. Some personality traits and human character strength generates positive energy which make an individual capable of practicing good and positive, which is helpful for both employees and organizations. This positivity reflects our cognition and actions (Peterson & Seligman, 2012). It is not only limited to positive emotions but it also make an individual emotionally and socially competent, enhance working and functioning in challenging situations (Miglianico et al., 2020). During literature search no research study with direct link between prosociality and counterproductive work behaviour was found, but the related existing studies on prosociality primarily focused on positivity and overlooking negativity. Some of the researchers are also worked on the dark side of prosociality.

According to (Bolino & Grant, 2016) the individual costs of prosocial behaviour, which includes risks of increased burnout, job or role overload, imbalance in work family relationship (M. P. Leiter & C. Maslach, 2017). These all-individual costs are directly associated with decreased productivity and profitability. The workers consider it obligatory to help others and sacrifice for the benefits of others. Sometimes they sacrifice their personal resources including physical and psychological properties like well-being, strength, vigor and vitality etc (Reizer et al., 2020). Therefore, on the basis of the above reviewed literature counterproductive work behaviour may be included in the negative aspects of prosocial behaviour among employees. Therefore, it is suggested for the researchers to conduct researchers on the direct association of prosocial behaviours and counterproductive work behaviour.

#### **2.1.10. Prosocial Behaviour and Turnover Intention**

Emergency rescue services works like central figure of the whole health care safety system. Shift work, role ambiguity, long duty hours, continuously touch with handling serious victims and eye witness of the death and dying situations are responsible for leaving the service. These issues are not limited to rescue service only but is also commonly found in all healthcare emergency professionals. To minimize turnover intention among these professionals has become a hot issue for the managers and leaders to find replacement of these trained and

competent employees. For this purpose, the managers need regular trainings to polish their skills while working on this issue in certain organizational settings.

Knowledge, skills, expertise and abilities are lost when the well trained employees decided to leave (Nasurdin et al., 2018; Samuel et al., 2009). It's difficult for the management to know about employee turnover intention. However, commitment and engagement are said to be the best predictors to know about employee intentions to leave. If the employees are committed and engaged to their organization, there will be low chances of employees turnover intentions (Yasmin & Marzuki, 2015). There is limited data on the direct link of prosociality and turnover but some of the researchers reported that prosocial behaviour has a significant influence upon turnover intention. This influence is due to positivity and the desire to benefits others, which pave way to achieve goals (Hazzi & Maldaon, 2012). Prosocial motivation and public service motivation both works as psychological resources to keep the employees in discipline, well order, committed, engaged and ready to serve the public. It was reported that low turnover intention was found among prosocially and intrinsically motivated (Kim, 2015; Zheng et al., 2021).

Literature on motivation reports that employees are not only working for earning or individuals self-advancement, but they also works to influence others like colleagues, seniors, juniors or family members (Grant, 2007; Zheng et al., 2021). Few researchers focused to know collaborative behaviour and prosociality. According to them employees engaged in collaborative effort will be more prosocial because their efforts and contributions are being recognized and valued that they are collaborating and benefiting others. Helping colleagues or others means that their knowledge, skills and abilities are used and they are meaningful and important for others. Keeping in mind the results of these studies we expect that turnover among emergency rescue workers may be decreased if their services are recognized by their seniors and the community also (Crowther et al., 2009; Shapira-Lishchinsky & Tsemach, 2014).

## **2.2. Social and Emotional Competence**

Individuals especially employees with a high level of social and emotional competence are known to be the assets of the firm/ organization. According to (Sadri, 2012), individuals with a high level of social and emotional competence were found effective leaders. Leaders with high level of emotional intelligence have the profound ability to identify, foresee and manage emotions of their self and their employees and they also motivate all team members

(George, 2000). Another study by (Prati et al., 2003) reported that emotional intelligence is a positive predictor of active and effective team contact and coordination. This coordination is also necessary for organizational productivity.

Effective team functioning is positively associated with team leaders emotional intelligent. Leadership is a highly loaded emotional process. Leaders with high level of emotional intelligence are said to the emerging leaders (Cooper, 1997). In other words, team leaders are the ideal person of the group and can bitterly work as motivator and cheerleader, proceed collectively towards the goal. Reduction in emotional distress is the result of social and emotional competence. According to (Boyatzis et al., 2017) team work, organizational awareness, conflict management, achievement orientation and influence are the competencies necessary for average level performance, but the outstanding performance may need some more advanced level competencies (Lyons & Schneider, 2005).

Emotional intelligence is another relevant term used by the researchers alternate to the emotional and social competence. It has been defined is the ability and capacity of someone to assess, identify and manage emotions of self and others (Serrat, 2017). It is also defined by (Emmerling & Goleman, 2005) that it is the overall abilities of an individual to recognize and regulates states of emotions of self and others, while one of the researcher called them the social and personal competence which is the basic of hard work (Cherniss, 2010; Tait, 2008).

According to (Oberst et al., 2009) emotional intelligence provides a base to emotional competencies while (Emmerling & Goleman, 2005) reported that emotional competencies are not the characteristics and talents found innate but these competencies are learned by an individual to get outstanding performance towards the target. On the other hand, social intelligence is used parallel to social competence. It is the capability of an individual to understand someone, manage someone and act accordingly in the social situations (Seal et al., 2011).

Goleman refers that it is the interpersonal portion of emotional intelligence. Social intelligence is composed of empathy, awareness, influence, inspiration, teamwork and developing others. These are the social competencies may be learned and improved (Depow et al., 2021). In other words it's the overall ability of understanding, managing all human beings to act competitively and wisely in relation to other humans (Denham et al., 2002; Dijk &

Freedman, 2007; Oberst et al., 2009) argue that social competence is the ability to integrate our cognition including feeling, thinking and acts to achieve social tasks.

Emotional intelligence is found positively associated with prosocial behavior or extra role behavior. Emotionally intelligent individuals are found more aware about their emotions while they are also found able to assess, judge others' emotions. Now it depends upon the individual how to manage and guide their emotions to benefit others in troubles. Emotionally intelligent individuals have the enhanced ability of problem solving and creativity (Dixit & Singh, 2019). Emotions and emotional intelligence have a major influence upon all job outcomes.

Positive emotions leads to positive job outcomes like job satisfaction, employee engagement and commitment etc, while negative emotions leads to unacceptable behaviors and job outcomes like counterproductive work behavior and turnover intentions etc (Andreoli & Lefkowitz, 2009; Prati et al., 2003). Emotionally and socially competent employees are like an assets for the organizations, due to their ability of handling horrific situations easily and effectively and they can easily utilize their competencies for the development of the organization (Boyatzis et al., 2000). Organizations having emotionally competent and stable employees are reported to control their working outcomes more effectively and comfortably with less anxiety and stress. Emotional stability involves managing and regulating emotions effectively to maintain a positive work environment and achieve professional success (Baka, 2015).

We can say that work attitude is dependent upon emotional stability of the employees and it's also the emotional stability which keep us aware about someone capability of handling unwanted situations. Leadership is also influenced by the emotional intelligence (Dixit & Singh, 2019; Greenidge & Coyne, 2014). Researchers reported positive association between leadership and emotional intelligence. Emotionally intelligent individuals are said to be the good leaders. A research study conducted by (Nikolaou & Tsaousis, 2002) reported positive association between emotional intelligence and organizational citizenship behavior while negative association is reported between emotional intelligence and counterproductive work behavior. According to them the altruistic behavior is practiced more as part of the OCB in military personals or those working for others life safety. This is due the awareness got by an individual to know about others' emotions and help someone in trouble. Emotionally intelligent

individuals easily perceive the troubles and others and they offer their help immediately (Abraham, 1999; Dixit & Singh, 2019).

### **2.2.1. Types of Social and Emotional Competence**

There are number of competencies like relationship skills, social awareness, self-management, self-awareness and decision making etc (Vestad et al., 2021). The most important competencies which are also required in rescue services are elaborated below.

#### **2.2.1.1. Self-Awareness in a Hazardous Situation**

Self-awareness is an individual's ability to understand their own psychological correlates which influence their behaviour (Rochat, 2003). Self-awareness make an individual capable to know about their strength and weaknesses related to hazardous situations. Self-awareness is responsible for improving decision making and self-management. Positive changes in some one life is associated with recognition of thoughts and feelings which in turn impact their own behaviour (Vestad et al., 2021). These positive changes lead to new insights in making decisions, actions and interest. Self-awareness is necessary for all responsible decision making and interpersonal relationship (Chow et al., 2013).

#### **2.2.1.2. Self-Management**

The competency of Self-Management is associated with regulation and control of emotions, thoughts and actions (Aldao et al., 2010). Self-Management improve working skills, manage stress, ability to set goals and self-discipline. Self-Management competency prepares rescue workers how to manage and control their emotions in a horrific situations, the situations where people are crying and dying (Scott & Myers, 2005). Better self-management is needed for better performance in all emergency situations. Self-Management controls emotionally driven behaviors, thoughts and feelings including anger, fear, loneliness, anxiety and jealousy etc. Self-Management also guid us to work with the available resources like time, energy and money etc which make rescue workers capable reach the goal with respect and dignity (Compas et al., 2017; Gross, 2015).

#### **2.2.1.3. Decision Making in a Critical Scenario**

Decision making is the most critical and attention seeking competency among rescue workers. It is the ability of someone to make positive and constructive decision based upon

individuals personal and social factors including cultural norms, ethical standards, safety concerns and social norms (Heilman et al., 2010). It requires the rescue workers to consider the situation of different potential actions, understanding strength and weaknesses and also to take steps like when more help is needed (Calderón-Tena et al., 2011). The outmost responsibility of incidence commander is to keep eagle eye on the situational hazards, while taking decision. The process of decision making need full attention and consideration for a constructive and positive outcome (Evans & Steptoe-Warren, 2019; Panno et al., 2013).

#### **2.2.1.4. Social Awareness**

This competency is associated with improving skills like how to deal others empathetically. Awareness to deal others in different situations where the people need help. Social awareness prepares you for a healthy relationship and interactions in social settings, which positively impact upon your family, colleagues, groups and community. Social awareness is the ability to know the pain of others in the community, it also facilitate the rescue workers to relieve pain of the victims responded in emergency (Basu & Mermilliod, 2011). Social awareness provides the ability to be well versed with the culture and also enables rescue workers to work more efficiently and professionally beyond gender, race, age, socioeconomic, culture, class, nationality and religious discriminations (Rochat et al., 2012).

#### **2.2.1.5. Relationship Skills**

This competency is concerned with making positive relations and connections with other members of office or community (Jones et al., 2015). It is not only limited to connection but also taking account of others' emotions in different circumstances and social interactions. These are necessary to maintain healthy and positive relationships. Relationship skills composed of well listening, effective communication, ability to compromise, ability to consider own and others' emotions, aware about thought processes, understanding social behaviours either appropriate or inappropriate and dealing others empathetically in highly demanding circumstances. Relationship skills are necessary for conflict resolution, problem and emotion-focused coping (Wong & Power, 2019; Zeidner et al., 2016).

Emotional competence is basically composed of three components including expression of emotions, understanding of emotions and experiencing emotions (Denham et al., 2002). Interacting and communicating to someone in social settings, expression of emotions is very important. Expression of emotions and communicating negatively or positively to influence and

making relationship with others is also crucial (Denham et al., 2003). Understanding of emotions is also important in emergency rescue service workers. Individuals have the ability to understand their own and others' emotions easily are said to more efficient and successful in making relationship and dealing others in social settings. Experiencing emotions is the recognition and regulation of emotions leads us to the defined goal (Boyatzis et al., 2000; Sy et al., 2006; Zsolnai & JÚzsa, 2003).

Social competence among adolescents and students are investigated widely and strong emphasis has been mad upon them in educational research. Social competence is said to be necessary to school readiness. Students having high level of social competence are found more successful as compared to less competent students in achieving grades (Zsolnai, 2002). Social competence is composed of social motives and social skills, which in turns stimulate an individual and organize social behaviour.

There are number of social skills like simple and complex social skills which are utilized in a specific condition and we can say that these are situation-based abilities. These skills are dependent upon degree off social knowledge, area and society Effectiveness of the social behaviour is also dependent upon the effectiveness of individual's social skills. To what extent helpful the condition, more the individual will utilize appropriate and specific skills. Social competence in a broad sense includes abilities, skills, habits and knowledge to act in a social setting. It can tie the employees in a strong social relationship. It enhances our interpersonal relations in a non-harmful way (Chow et al., 2013).

According to Rose-Krasnor's model of social competence, it is a multifactorial approach including simple, specific and complex social, emotional and cognitive capabilities. These factors are also accompanied by social motivation and social behaviour related to every individual. Every step of life spin creates and develop some more specific physiological and emotional skills. Social skills, relationship success, peer status and functional goal-outcome assessment are important factors of social competence (Zsolnai & JÚzsa, 2003).

Literature shows a strong relation between emotional awareness and emotional communication skills in social competence. Emotions and emotional regulation have a dynamic role in social competence. According to (Hunter et al., 2018) emotional competence is the ability that how an individual identifies, understands, and implement emotional information related to others that expedites effective and extraordinary performance while social

competence is the individual ability that focuses on the capacity to identify, apprehend and practice those emotional information related to individual self in a way that proceed to standard and real order performance. Individual has the ability to be aware about social information including empathy, job description and organizational awareness, it also promotes effective management of relationships in the organization.

Effective management of relationships includes developing others, influencing others, conflict resolution, leadership skills, teamwork, working for change, cooperation and coordination (Hunter et al., 2018). Social and emotional competencies include positive interaction with colleagues, seniors and even with juniors. Self-representation positively, emotional regulations and use of social skills in a right condition (DiPrete & Jennings, 2012). In this way, the employees will be able to differentiate social consequences in the working environment which are related to empathetic employee behavior, service-oriented, and high organizational commitment and engagement. These mentioned positive behaviors are all linked with conflict management, influencing others, inspirational leadership, higher cooperation, and teamwork. Emotional and social competencies are closely relevant in the process of developing leadership skills (Waite et al., 2015; Walter et al., 2011).

Emotional intelligence based on overall abilities leads to emotional competence while these abilities of emotional intelligence provide the basis for emotional and social competencies. Emotional intelligence is believed as a contributing factor to the ability necessary for developing emotional and social competence (Cherniss, 2010). Therefore we can say that an individual with a high level of ability-based emotional intelligence has the competency for learning and presenting emotional competence but it is not necessary to be an automatic process (Abraham, 1999).

Literature shows a strong relationship between social and emotional competencies, but the relationship is complex and sometimes they overlaps in certain conditions (Zeidner et al., 2004). Individual interactions in the social settings need specific expression of emotions. The most important thing is how an individual is communicating their negative or positive emotions to others. It has a strong influence over the whole process of emotional regulation, emotional control and communication.

Both social and emotional competencies are developed and constructed upon the fundamental abilities of Emotional Intelligence. Work and working itself is emotionally loaded

process and our emotions have directly influence our perception of information and association with others (Druskat et al., 2013). Most of researchers reported positive correlation among emotional intelligence and employee performance and leadership skills (Côté & Miners, 2006; Di et al., 2022; Emmerling & Goleman, 2005).

Emotional intelligence is not only limited to work but also determined in home (Chapman & Hayslip, 2005; Ciarrochi & Scott, 2006; Fineman, 2004). According to (Hopkins & Bilimoria, 2008) emotional intelligence is the combination of emotional and social competence. Cognitive and affective abilities are the subparts of emotional intelligence. Competency in someone is a measurable ability which create level of discrimination in their performance of a given job or role, in certain culture/organization. These capabilities are not only measurable but are learned (Araujo & Taylor, 2012).

Contrary to emotional competence, social competence is a permanent and ever-changing system composed of social abilities. These abilities are utilised in situations and events which triggers emotions and social skills (Boyatzis et al., 2017; Zsolnai & JÚzsa, 2003). The social abilities system contains the simple and complex abilities and sub abilities related to social knowledge. Social competence enables someone to engage in suitable and demanding social behaviour. Social competence is the overall effectiveness in social and emotional interaction. Association between social and emotional competence is complex and unclear. Some recent researches assumed that emotional competence is necessary for the development of social competence more specifically in childhood (Hopkins & Bilimoria, 2008; Zsolnai, 2002; Zsolnai & JÚzsa, 2003).

Like emotional competence, social competence is also the combination of three important components including sending an affective message, receiving an affective message and experiencing affectively in the current situation. Furthermore, each component is further subdivided into four abilities like identification, awareness, management and regulation and working within social context. These abilities are dependent and can be polished with experience (Boyatzis et al., 2002; Dreyfus, 2008; Zsolnai & JÚzsa, 2003).

### **2.2.2. Gender Differences in Social and Emotional Competencies**

Currently a huge focus of researchers is on the role of gender in regard to different variables. There are a lot of factors in the workplace which makes a considerable difference between roles of female and male leaders but there are also some researchers which reported no

difference (Anwar et al., 2011). Factors responsible for gender differences related to social, emotional competence and overall leadership skills include decision making, utilization of powers, conflict resolution, team work. In the mentioned conditions females' leaders are found more competent than male. Literature shows that female leaders have better understanding and use of their skills as compared to their male colleagues (Hopkins & Bilimoria, 2008; Rutherford, 2001).

Females are found more competent when they were assessed for skills, performance, emotional and social competencies. Women are reported to have more strength and less shortcomings when compared to their male counterparts. Considerable body of literature reports female are more socially and emotionally competent than male (Boyatzis et al., 2002; Brackett et al., 2006; Mandell & Pherwani, 2003). Actually, there is a difference between effective and successful leaders. Successful leaders are those lucky leaders, which are promoted quickly while on the other hand effective leaders has the quality to keep their employees happy, satisfied and productive.

Effective leaders have the skills to make the workplace, a place of joy and pleasure not a place of stress. Leaders are classified on the basis of behaviour patterns. A lot of research studies reported a positive association between emotional and social intelligence competencies and job performance among different organizations like sales persons and call centre agents. Researchers suggested that those employees enriched with emotional and social intelligence competencies will perform considerably better in the workplace (Dulewicz et al., 2005; Higgs, 2004; Wong et al., 2004).

### **2.2.3. Social and Emotional Competencies in Rescue Workers**

Responding to hazardous and horrific emergencies on daily basis, as a result sleep disturbances, symptoms of acute stress disorder, post-traumatic stress disorders and pressured decision making are some of the emotional complications faced by fire and rescue workers. Working in these emotionally loaded circumstances the rescue services personal are required to have skills of emotion management like control over increased heart rate, tachycardia, self-doubting thoughts and sweating etc (Mulligan & Scherer, 2012; Scott & Myers, 2005).

Emotions either negative or positive are considered a barriers in effective decision making in the workplace especially in a situation of increased attention (Evans & Steptoe-Warren, 2019). While working in emergency rescue services crying of dying victims, burned

victims, multiple deaths, powerlessness, fear, horror and aggressions are the situations responsible for triggering emotions (De Soir et al., 2012). Those emotions forcefully controlled at the incident spots may disturb the rescue workers in the station afterwards. Therefore emotions must be controlled in acceptable way to minimize their aftereffects (Scott & Myers, 2005). Acute stress reactions, post-traumatic stress and related issues are commonly reported after responding to a bloodied incidence. The more severe the incidence, there will be more severe emotional reactions on the rescue workers health (Khattak, 2016). Managing your emotions properly and acceptably can prepare you for long lasting physical and psychological health (Huang et al., 2010).

Some situational factors are responsible for emotional complications like shortage of shift staff, shortage of related equipment's and medications, complexity of incident type, communication issues, relationship issues, control of uncooperative bystanders and involvement of terrorist groups etc (Couper & Karimi, 2013). Issues outside working place are also important like unbalanced work home environment, physical fitness and shortage of time for social life like family and friends are predictors of disturbed psychological health. Shift rotation has a significant effect upon relationship and worker's health (Gan et al., 2015; Morren et al., 2005; Strazdins et al., 2006). Literature of the earlier researches denoted that working in emergency rescue and fire services is highly complex and emotionally demanding (Evans & Steptoe-Warren, 2019).

It is recognized globally that social interaction to work in a team has significant effects on the efficiency of healthcare professionals and patient care workers in the hospital or prehospital services. Optimal health outcomes may be obtained, when they work collectively in a certain setting. High quality of patient care may be disturbed due to communication issues, lack of accepting responsibility and lack of trust over the professionalism of colleagues (Leonard & Frankel, 2011; Liebe et al., 2019; Muller-Juge et al., 2014).

Rescue workers must have the ability and competence to mobilize, inspire and guide one another both in a team and individually. They may be loaded with the quality of influential and inspirational leadership to help those in trouble (Mitonga-Monga & Cilliers, 2016). By using the quality of empathy, they can manage diverse and life-threatening circumstances easily and effectively. The rescue workers will be able to develop a special plan before starting operation and will act upon the plan, but they must be adoptable to change their plan according to the changing patterns of unwanted and horrific circumstances during the emergency. The rescue

workers will try to find out different ways of saving the whole community including humans, animals and even forests by keeping in mind their own safety (Boyatzis et al., 2017).

The incident commander working on emergency spot can use inspirational leadership skills to motivate and stimulate their staff to work as team and act upon the plan for the attainment of collective goal. Emotional self-control and adoptability are the two important competencies for rescue workers which enabled them suppress and control their own feelings and emotions to adjust themselves in horrific and blooded emergencies (Boyatzis et al., 2017; Frye & Wearing, 2011).

### **2.3. Job Outcomes**

Job outcome is someone entering, developing, advancing or retaining in his job. These are the consequences employees are enjoying after entering to certain jobs. They may be positive or negative (Diener et al., 2002). Positive job outcomes are like job satisfaction, work engagement and commitment etc, while negative job outcome are like turnover intention, absenteeism and counterproductive work behaviour etc. it may be divided on the basis of outcome duration like short term job outcomes and long term job outcomes or role type of the outcome (Van Dijk & Brown, 2006). There are many factors responsible to effects job outcomes including personality traits, optimism, happiness, warmth, openness, neuroticism and level of psychological correlates (Khanna et al., 2017). Other researchers found association of different job outcomes like job satisfaction, benefits, job level, turnover intentions, organizational commitment and job performance etc (Diener et al., 2002).

### **2.4. Work Engagement**

Work engagement and organizational citizenship behaviour got more attention in social sciences, especially in organizational psychology (Macey et al., 2011). Work engagement is the employee's positive, enjoyable, work-related attitude, and behavior that is characterized by strength, enthusiasm, and preoccupation. Work engagement is the composition of vigor, dedication and absorption. Vigor is the high level of energy the employee experiencing within the workplace. This energy provides force and strength to invest the effort and work with consistency even in difficult circumstances which leads to mental or emotional resilience at work.

Dedication is the fully involvement of employees in their work and they are enjoying sense of enthusiasm, inspiration and significance. They are relishing the challenging situations and are feeling pride over their work. The last component of engagement is the absorption, which is the focus and full attention of the employees in their work to get benefits and increase productivity of the organization (Amano et al., 2021). The term employee engagement is related to an employee contribution, overall satisfaction and level of enthusiasm for their work.

Employee engagement is linked to organizational performance (Harter et al., 2002). These researchers established an expressive association between engagement and business outcome like productivity, profitability, customer satisfaction and level of turnover intention. According (Saks, 2006) engagement is multidimensional in nature, work engagement and organizational engagement. Employee or work engagement is exceptional and quite unique composed of employee's cognitive, emotional and behavioural mechanisms. These components are inimitable to individual role and performance while organizational engagement is the employee performing the role as a member of certain organization. Employees with a high level of engagement will feel energetic, enthusiastic, strong, satisfied, and committed during work and they are found completely immersed in their work (Schaufeli et al., 2002). Most of the organizations reports that highly engaged employees are integral to customer satisfaction, improved overall performance, job satisfaction and develop quality of service to superior level. To establish an enjoyable engagement among employees is a challenging task for the organization specially in health care sector (Tufte, 2013).

Some of the researchers reported some important factors like proper utilization of organizational resources including autonomy, social support and employee involvement in decisions related to different organizational matters (Brown & Cregan, 2008). Attention has been shifted from theory to practical and the responsible has been come upon the shoulders of managers, that how they are developing engagement among employees of the organization. Job Demands-Resource model explains that work engagement is generated from the balance between job demands and available resources. Job demands includes workload, targets, deadlines, duty timings, duty shifts etc while available resources include supervisors support, co-workers support, rewards, decision making, effective communication etc (Schaufeli & Bakker, 2004).

Some of the research studies reported work engagement works as predictor of workers performance, which is indeed tied with workers health condition. Improvement in the level of

work engagement is positively associated with workers health promotion. Engaged employees always feel safe and secure (Amano et al., 2020; Shimazu et al., 2012). Researchers in social sciences are working on the psychological importance of engagement in the work place. They are also interested to investigate their association with other variables (Rich et al., 2010).

#### **2.4.1. Engagement Works like Assessment Tool**

In other words, we can say that level of engagement is the assessment of employee. To what extent the employee is using and utilising their skills and knowledge. Highly engaged employee will use their knowledge and skills to the extent. Engaged employees are found more willing to put flexible use of their skills and efforts for the development of the organization. High level of employee engagement denotes high level of employee involvement in their work (Lockwood, 2007). Another study by (Frank et al., 2004) reported that employee engagement is the positive emotional attachment to their working organization. It is an individual success in terms of satisfaction in work. Satisfied employees are found motivated with less turnover intention and high well-being. Job characteristics and organizational support are reported the antecedents of work engagement (Van den Berg et al., 2013). Indeed workers having high work engagement feels themselves energetic and ready to face challenging professional circumstances (Albrech, 2011).

#### **2.4.2. Types of Employee Work Engagement**

Employee work engagement is an individual job outcome varies from person to person and organization to organization. Highly engaged employees are willing to work till to the extent for the development of organization. Employee work engagement is categorized into cognitive, emotional and physical engagement.

##### **2.4.2.1. Cognitive Engagement**

This involves to what extent the employees' thinking, attention and focus on the given and accomplishment of tasks assigned to them. Highly engaged employees are ready to accept challenges and they are rarely distracted by little distraction at work. It is the overall belief of the employees about the organization and value given to the organization and organizational matters (Castellano et al., 2019). One of researcher tied cognitive engagement with different talent-based programs. Through these training programs the employees have an opportunity to

discover and polish their skills, knowledge competencies and the potential of sharing knowledge.

The process of development will influence their cognitive attachment with work or organization. They will make the employees able to identify issues and their solution. Furthermore cognitive engagement is also formed when there is perceived organizational support (Fachrunnisa et al., 2022). Perceived organizational support has a significant effect over positive actions of the employees which is necessary for employee well-being, emotional strength, self-evaluation and passion. These positive actions and behaviour are necessary for the employees to invest their abilities and skills for the development of the organization (Rhoades & Eisenberger, 2002).

Organizations of employee's supportive environment has fewer common issues of counterproductive work behaviours and turnover intentions. The employees feel more confident, when there is a support from seniors and colleagues. Steps for workers welfare, appreciations and recognition of work, care for employee need are the factors required for generation of employee self-confidence, self-efficacy and self-esteem. These factors further make the employees more engaged and satisfied (Rhoades & Eisenberger, 2002). Cognitive engagement breeds cognitive abilities in employee like problem solving skills, critical thinking abilities, evaluation skills and searching alternative solutions to problem solving (Huselid, 2018; Lindqvist & Vestman, 2011).

#### **2.4.2.2. Emotional Engagement**

This involves their own feelings and behaviors of involvement at work. It is the 'here' and 'now' experience of the employees having, while they are busy in their work. When employees of a certain organization associate their feelings positively with the organization, they are said to be emotionally and physically engaged with the organization. Positive association means positive response. According to (Reina et al., 2018) and colleagues there is a significant association among managers supportive behaviour, employee emotional engagement and employee turnover intention. They found that emotional engagement is a potent psychological resource in retaining workers in their job. It provides an opportunity in the employees to feel individually connected to the work or organization which is positively associated with employee retention and productivity. It is the overall feelings of employees either positive or negative about his seniors, juniors and colleagues (Chukwuma et al., 2019).

Negative emotions have also a significant effect on employee and organization. Employees emotionally engaged are not only working for a salary check at the end of day or month or promotion or compensation, but they have feelings, thinking and actions regarding their work or organization. These positive feeling and actions of the employees lead to goal achievement in an effective and efficient way. Feeling of being valued and confident collectively empower employees to be good decision makers in critical situation with full enthusiasm and courage (Ariani, 2013; Chukwuma et al., 2019).

#### **2.4.2.3. Physical Engagement**

It is related to those practical steps taken by the employees for both individuals and organizational development (Knight et al., 2017). Participation in voluntary activities like training and seminars etc are the examples of physical engagement (Simpson, 2009). Work engagement is a state needs active and positive mentally and physically present individuals, therefore highly engaged employees are said to physically and psychologically engaged. They are always thinking and doing some good deeds and will try to avoid bad deeds. These employees will be always creative (Dul et al., 2011; Serrat, 2017).

#### **2.4.3. Factors Influencing Work Engagement**

Work engagement is a job outcome which may be created among employees of the organization. Creation of engagement among employees positively influence employees attitude and behaviour (Kim & Ausar, 2018). Researchers identified 26 key drivers relevant to employee engagement. Some important from the list include exhilarating and challenging work, career progress, training and development opportunities, exceptional colleagues, compensation, supportive supervision and management, recognition of services, respect and appreciation. Below are some specific factors related to employee engagement reported by (Vazirani, 2007).

##### **2.4.3.1. The Workplace**

The workplace itself play a key role in employee work engagement. Supportive work environment leads to high work engagement. The work environment include some physical and some technical factors like attitude and behaviour of colleagues, seniors, juniors and work-home relationships while technical factors include use of technology at workplace etc (Briner, 2000). Work environment is the overall climate where the workers are working (Hanaysha, 2016). Factors that affect work environment include seating, electricity, internet, lighting system,

office layout, equipment's layout and storage, work place design and workplace temperature. These mentioned factors influence employee performance which further effects job satisfaction, commitment and engagement. Supportive work environment and prolonged stay are linked with workplace (Anasi, 2020; Yusliza et al., 2020).

Conductive and attractive work environment has positive impacts on employee job satisfaction and it generates committed, motivated and engaged employees. Work engagement is related to employee physical and emotional presence when and where they are working. Level of engagement is associated with their job area and job role. High level of engagement is necessary for the generation of positive energy and identification (Macey & Schneider, 2008). According to (Nienaber & Martins, 2020) commitment influence employee engagement in certain organizations. Researchers found strong association among workplace environment, commitment and employee performance (Danish et al., 2013; Dul et al., 2011; Hanaysha, 2016).

#### **2.4.3.2. Effective Communication System**

Suitable communication plays a key role in development of organization. Top-down communication and open-door policies are necessary for every developing organization. Policies related to decision making must be the combination of both leaders and subordinates' viewpoints. Every employee has the right to be heard during policy making and decision making. Good communication with employees is helpful in comprehending their role and it is also helpful to contribute their services to the organization. Good communication also encourages the employees to share their issues (Clampitt, 2005).

Good communication among employees shares good information about any development in the organization. Effective communication keeps the employees familiar with the upcoming variation and change within the organization. Every organization needs to clearly establish and properly communicate their job descriptions, job demands and goals with the employees. The employee should also be given proper time for preparation while achieving the goals. They must define their rules and regulations and highlight their priorities. It will help the employees to focus on achieving their goals and complete their tasks assigned to them. Another importance of the effective communication is that the employees may obtain proper feedback on their performance from the high-ups, which is necessary for engagement and commitment and improvement.

All the employees expect support and recognition of their work. Regular feedback and recognition of work act like an incentive and pulls employees attention and concentration to improve their job (Cattermole et al., 2013). Regular recognition and feedback are positively associated with better performance. Effective communication provides an opportunity to share feelings which strengthen and builds confidence among the employees and their associations. Effective communication provides accesses and connect workers with their managers or supervisors (Welch, 2011).

#### **2.4.3.3. Rewards and Recognition System**

Services recognition and reward are necessary for employee motivation. Employees must need benefits and compensation for engagement and commitment. Regular promotion or increase in salary is the recognition of employees services and achievement by the organization (Teofisto, 2009). According to (Cooper-Thomas et al., 2018) and colleagues every organization need proper payment system to attract employee to work and stay. All the organizations must have a well-established attractive monthly salary system.

Some organizations are also paying bonuses and other payment options like honoraria, allowances including daily allowance and transport allowance etc. Benefits and compensations are positively associated with employee work engagement. Pay system and other compensations should be attractive and reliable with terms, conditions, academic, experience and relevant demographic. To increase employee engagement, the organization must have the ability to benefit and compensate the employees (Mottaz, 1999)

#### **2.4.3.4. Career Development Programs**

Learning is a continuous process and it is not limited to the classroom only. All the employees in the organizations need regular tutoring and trainings to develop their skills and cope with the new technologies. Career development is like software updating. Software of certain computer programs are updated to become able to work with the new demands of the users. Trainings help the organizations to develop skills of new and existing employees and make them compatible and acquire the required skills and knowledge while working on certain position.

Before starting certain trainings for employees, the organizations also share the aim and purpose of the training and expected results. The organizations are always trying to engage in

trainings, which looks profitable, beneficial and have long term impacts. The main objective of the said trainings is to increase employee contribution in task accomplishment and goal achievement. The managers or supervisors must need to design developmental tasks (Altehrebah et al., 2019). These tasks are designed according to their designation and job description. The employees' developmental tasks are linked with job satisfaction, which in turns leads to engagement. In such position the employee is doing and getting more from the same work. Researchers reported strong association engagement, training and development.

The employees are found more engaged and committed when they realised that the managers or leaders are working on employee development and facilitation. These employees have the high level of personal effectiveness. All the employees need to know about their purpose and mission within the organization, when they are aware about the purpose they will try to find out different possible ways for service acceleration and development (Luthans & Peterson, 2002).

Employee high level of engagement is associated with new skills, new knowledge and utilization of inner potential. Highly engaged organizations are investing on their employees, which is necessary for high productivity. Performance appraisal by the supervisors is necessary to develop employee personal competencies. Employee engagement may also be enhanced through fair performance assessment techniques and procedures. Organization having proven history of using fair performance appraisal techniques generates engaged and committed employees (Altehrebah et al., 2019).

#### **2.4.3.5. Personality of the Employees**

Employee personality may also influence level of employee work engagement. For example, two individuals are recruited at a same time in a single organization. One of them is feeling happy, committed and engaged while the 2<sup>nd</sup> one is feeling bore and low level of engagement. Both of the employees have different level of engagement. Highly engaged individuals are found hard working, committed with low level of counterproductive work behaviour and turnover intention (Judeh, 2021). There are limited empirical research studies on the association of work engagement and personality.

Earlier literature reported that employees with different personality traits are motivated by different activates which weakens or strengthen their response, depends upon situation and available resources (Bandura, 2001a; Warr & Inceoglu, 2012). Another researchers reported that

personality traits are responsible for motivation, engagement and commitment even employees with different personality traits may evaluate the same scenario differently (Liao et al., 2013). Another study on the relationship of big five personality traits and employee work engagement found significant association among two personality traits including agreeableness and openness to experience and work engagement. Openness to experience was found significant predictor of work engagement due to rapid variation of current working life.

Those employees who are ready to adopt immediately with the situations were found more engaged. Individuals with personality trait of agreeableness are found to work in peaceful situation and they have the ability to solve the conflicts. Employees of this trait are found positive and motivated; they are always in search of the conflict resolution and peace. Indeed they are found more engaged because they save the energy and utilise it to use in a positive area (Ongore, 2014).

Highly engaged employees will always try to accomplish tasks within the time and will always try hard for goal achievement. According to (Geldenhuys et al., 2014), there are three important components of engagement including vigour, dedication and absorption. These three components are closely tied with employee physical, emotional and cognitive aspects. Vigour and vitality impelled an individual to live for a purpose. They are energetic and enthusiastic and they love challenging life. Their life is full of energy, passionate, working wholeheartedly, and they hate working half-heartedly (Abid et al., 2018; Geldenhuys et al., 2014).

Highly engaged employees are utilising their skills by using the available resources and preparing their self for anticipate consequences. This quality pulls them away from stress, pressure, anxiety and other psychological conditions. Majority of the research studies have concluded that there is a between-person approach, showing that there are differences in the level of work engagement between people related to working conditions, individual differences, and their behavioral approaches (Bakker, 2014). However, some of the researchers also reported that work engagement also varies within an individual depend upon the situation, time, and type of work. The main reason behind the importance of engagement is that it is a very good factor to predict important consequences of employee, team, and organization due to their strong commitment and enthusiasm to emphasize their work.

It is obvious from the earlier literature that engaged employees will perform well to help the organizations in achieving their goals (Christian et al., 2011). According to (Petrou et al.,

2012) they reported on daily, weekly and episodic engagement, such types of engagement is concerned with daily working activities and it is the levels of vigor, dedication, and absorption on that day which depends upon time, type of work, and other related circumstances. Non flexible duty hours, unsupportive colleagues, insufficient resources and supervisory support are found dangerous to workers work engagement. The current pandemic situation of Corona Virus Disease (COVID-19) has created more issues for employees like lack of face-to-face supervisor instructions and support, which are necessary for achieving targets and increase in productivity. Such type of pandemics also deteriorate health conditions of the employee, which is directly associated to performance and productivity (Amano et al., 2021).

#### **2.4.4. Work Engagement Among Rescue Workers**

Armed forces, Rescue services and police are included to be the part of rescue workers because they are all involved to save people and evacuate them from an emergency spot to a safe area. They are working in terrorist attacks, different accidents, fire and disasters but they found motivated and engaged in their job while saving the people on high risks on daily basis (Shakespeare-Finch, 2011; Sinval et al., 2018; Stassen et al., 2013). Rescue workers are prone to different physical, emotional and psychological disorders due to frequent exposure to horrific emergencies and disasters. They need special attention from their organizations to polish their coping skills (Queiros et al., 2013; Rabjohn, 2013). Due to the mentioned circumstances these professionals can develop chronic job stress which sometimes leads to burnout (Katsavouni et al., 2016; Krok, 2016).

Some of the researchers from the field of organizational psychology have worked on the association of burnout and work engagement. Improvement in employee work engagement lower down or prevent burnout (M. Leiter & C. Maslach, 2017; Leon et al., 2015) (Schaufeli et al., 2020). It is obvious and important that work engagement is a significant psychological resource for rescue workers as it may protect them from developing negative emotional or psychological health issues like anxiety, stress, mood disorders, sleep related issues, fatigue, trauma and burnout or presenteeism (Burton et al., 2017; Kumar, 2011; Ray et al., 2013; Setti & Argentero, 2014).

#### **2.5. Counterproductive Work Behaviors**

Counterproductive work behaviors are those acts by the employees causing harm to their colleagues, subordinates, or organization in the form of bullying employees, theft, breaking the

organizational property or damaging the important records of the organization, etc. Such types of acts or behaviors may occur one at one time or there is also the possibility that these behaviors can go instantaneously together (Fagbohungbe et al., 2012). It is intentional acts and it's also unacceptable behaviour that has a probability to be harmful to the organization or the employees of the organization. Time misuse, use of psychoactive or prohibited drugs use, destruction of organizational or employees personal property, misuse of information and other resources etc (Roopa et al., 2016).

Counterproductive work behaviors are those activities that are contrary to organizational welfares and goals. Withdrawal behavior, production deviancy, theft, and abuse are common examples of counterproductive work behavior. Some of the workers use production deviance behavior as a strategy, in case of insecure work environment the employees may show deviant behavior and they may be involved in counterproductive work behaviors which are not good for the organization. Most of the time there is a loss of productivity and failure to gain organizational goals in case the employees of certain organizations are involved in counterproductive work behavior (Zahoor et al., 2019).

Counterproductive work behaviors are deliberate and unacceptable behaviors of the employees which negatively effects the employees, administration and the overall organization. Intensity varies from little theft to misuse of information. Their level varies from interpersonal to organizational (Fox et al., 2001). Stressful working situations are reported responsible for workplace unwanted and unacceptable behaviors. A study by (Bennett & Robinson, 2000) identified four types of CWBs including leaving the workplace before timing, stealing of something from workplace, involvement of politics include nepotism, favouritism and blaming others while personal aggression include verbal and physical abuse or harassment etc.

Counterproductive work behavior is directly associated with level of stress. Stress generates negative feelings and these negative feelings leads to negative actions which is most unacceptable to the authority of the organization. Mostly these unacceptable and unexpected behaviors or actions are noted in new inductees because they are new to the environment and they don't have awareness about adjustment skills. Sometimes these behaviors are noted among incompetent and unskilled employees, when they are failed consistently in a completion of the assigned tasks. Role conflict and role uncertainty are the other factors which leads the employees towards counterproductive work behavior practices in the workplace (Fox et al., 2007).

### **2.5.1. Interpersonal Workplace Aggression and CWBs**

Counterproductive work behaviour is the outcome of interpersonal workplace aggression, which is the major negatively existed actions of the employees in the organization. This negative organizational occurrence has a chance to impact employees either verbally or physical, direct or indirect aggression. Interpersonal workplace aggression effects both ability and skills of the employees and minimize the occurrence of achieving the targets. It is not only results counterproductive work behaviour but also generate several negative organizational outcomes like high absenteeism, low productivity and high turnover intention etc (Dupré et al., 2014).

Increase in workplace aggression leads to increase in job searching behaviour to get rid from the aggression facing in the workplace. In most of the cases these behaviours are damaging to others or to organization because sometimes the victim is unable to tolerate or adjust to the aggression or aggressive behaviour. Long term exposure to this behaviour is also harmful to organizational reputation and deterioration in quality of work. In case of infrequent aggressive episode or aggressive supervision, most of the employees adjust and bear the infrequent aggression, they also stay and wait for a positive change but in case of frequent and regular aggression or aggressive supervision they prefer to quit the job and search for alternative (Hahn et al., 2007).

Counterproductive work behaviour is not limited to employees of the organization but it is also related to the organization itself. Counterproductive work behavior among employees of the organization is dysfunctional behaviour. Counterproductive work behavior effects almost all the related factors including social, emotional, economical and psychological (Tahir et al., 2018). Dysfunctional behaviours lead to violation in organizational norms which results sever loss in productivity and profitability. These behaviours in employees have costly consequences and huge losses for the organization. The aforementioned behaviours are also responsible for creation of stress among employees which interpersonal organizational relationship.

Employees with those behaviours in organization are found low in self-esteem, lack of confidence, physically and mentally under-compromised and they also lack organizational citizenship behaviour (Ayub et al., 2021). In some extreme cases of aggressive behaviours among employees, they are found highly engage in turnover intention and alternative job search behaviours. They are trying to search alternate job opportunities to escape from the aggressive,

unsupportive and stressful workplace. In some cases, if the mentioned behaviours are found in leaders or managers, their immediate effect is reported among their subordinates because they don't have another way balance their frustration except the subordinates. Like the above-mentioned scenarios most of the subordinates becomes vulnerable and leads to be the victims. Due to these practices' quality of work, productivity and profitability are affected and the employees also start search for alternate jobs and resources.

Researchers reported that leaving the organization is the most employees response in case of aggressive supervision particularly (Baka, 2015). Researchers reported two types of practices in the organization. 1<sup>st</sup> is the persistent and continuous aggressive supervision and use of aggression which leads to turn over the current job, in the 2<sup>nd</sup> case there are irregular and infrequent episodes of aggressive behaviours in the 2<sup>nd</sup> case most of the employees are found unengaged in alternative job search behaviours. Sometimes use of low level aggression either verbal or physical are beneficial to increase productivity, profitability and it is also necessary to make a disciplinary workplace environment (Baka, 2015; Dupré et al., 2014).

### **2.5.2. Counterproductive Work Behaviour Versus Deviant Behaviour**

Counterproductive work behaviour often used interchangeably with deviant behaviour has become a hot issue for both business executives and academicians due to its costly and disrupting consequences. A behaviour is said to be deviant if it has the probability to damage or harm someone being member or colleague or the whole organization. Deviant behaviour may include individual or collective behaviour. Employees are found involved in counterproductive work behaviour, when they are intentionally performing some acts in order to harm their colleagues or they intend to harm or damage property of the organization (Shahinuzzaman et al., 2017). Due to these consequences behind CWBs every organization is trying to minimize and balance the workplace environment (Penney & Spector, 2005; Yang & Diefendorff, 2009).

Counterproductive work behavior is intentional, purposeful and not accidental. The behaviour is repeated deliberately to damage property or decrease productivity and profitability of the organization. Sometimes the behaviour is repeated for attention seeking and acceptance of some demands (Spector et al., 2010). Most of the organizations are using the adoptive settings where they are facing multiplicities of behaviours where costly and damaging consequences are expected. These consequences are sometimes limited to employees individually but mostly to the organization as whole.

Counterproductive work behavior at individuals' levels related to employees only include ferocity, vocal manipulation, stabbing and annoyance etc while CWBs at organizational level include long hours break, holidays without any reasons, cyberloafing, stealing something from office or employees, sabotage and misuse or damage of employees or organizational property. Implementation of proper policies of justice are necessary to reduce CWBs among employees. The organizations may aware and train the employees to enhance abilities and skills related to organizational citizenship behaviour (Chang & Smithikrai, 2010). Organizational citizenship behaviour and counterproductive work behaviours are two active forms of behaviours have both positive and negative impacts. Counterproductive work behavior harms while organizational citizenship behavior helps employees or organizations. Researchers from organizational psychology sector studied both the behaviours conceptually and empirically (Dineen et al., 2006).

Counterproductive work behavior either individuals or organizational level both are very damaging impacts on organizations. They negatively impact the organization through decrease in productivity, profitability, increased maintenance costs due to damaged property, decreased mental or psychological satisfaction among employees and poor organizational image among the circle. Over 50 billion dollars are estimated costs of scam, robbery and corruption committed by the workforces in different organizations (Dineen et al., 2006).

Managers and leaders of the organizations need clear understanding and awareness of the issue which is deteriorating the whole scenario (LasisiOlukayode et al., 2014; Pelin & Funda, 2013). Employees verbal, physical and mental behaviours need attention of the leaders. Sometimes the behaviours are helpful and beneficial while sometimes they are harmful to the organization like CWBs etc (Hiriyappa, 2008). These harmful behaviours are termed differently by different scholars like anger, workplace violence, revenge, intimidation, emotional vindictiveness, stealing, sabotage, rudeness and dispute. It is obvious that the mentioned all deviant behaviours have negative impacts, due to which they are collectively called counterproductive work behaviours (Ambrose et al., 2002; Barling et al., 2009; Kelloway et al., 2010).

### **2.5.3. Types of Counterproductive Work behaviour**

In the context of rescue workers, CWB can have serious consequences as it may impede their ability to perform effectively in emergency situations and jeopardize the safety of both the

rescuers and the people they are trying to help. Researchers have categorised counterproductive work behaviors into five broad types due to its broad dimensionality (Bruursema et al., 2011). Most of the researchers categorised counterproductive work behavior differently. Some of them are agree to include sexual harassment while some of them are not agree (Gruys & Sackett, 2003). Here we discussed the most common types of CWBs related to workplace environment.

#### **2.5.3.1. Abuse against others:**

It's consisting of acts including verbal, physical and psychologically harmful behaviours related to other colleagues or subordinates in the organization. It ranges from mild to severe level, from just ignoring someone to pushing and hitting. Furthermore, abuse is divided into sex types including physical, sexual, verbal/emotional, psychological, economic and cultural. Examples of this behaviour include threats, ignoring others and disapproving comments.

Harassment or workplace abuse is reported from certain organization but the frequency is greater against women. There is a chance of more abuse or harassment but mostly it is not reported and are concealed or adjusted (Gale et al., 2019). Workplace abuse is responsible for some psychological disorders like sleep related issues, anxiety, stress, depression and post-traumatic stress disorders. In some cases the victims experience only minor symptoms but in some cases the victims experience more severe symptoms accompanied with other serious conditions (Nabe-Nielsen et al., 2016; Nielsen & Einarsen, 2012).

#### **2.5.3.2. Production deviance:**

This type of behaviour consists of intentionally performing job tasks ineffectively. Intentional deviation from the duty or negligence in standard of working or responsibilities or doing something irrelevant during the duty time (Dunlop & Lee, 2004). Example of production deviance include working slowly, when there is a deadline to complete a target. According to (Omar et al., 2011), conceptually there is high overlap between workplace deviance and employee aggression at workplace because both of the behaviours are composed of hostile intentions and motives but some researchers identified difference between the constructs. Employees who are abused by seniors are found involved in workplace deviant behaviour. There are some other factors behind employees deviant behavior including both situational and environmental circumstances (Dunlop & Lee, 2004; Tepper et al., 2001).

#### **2.5.3.3. Sabotage:**

This type of behaviour includes damaging or destroying someone or organizational property. It is an intentional and purposeful behaviour of the employees to harm or damage the organization or organizational policies, rules and regulations through sedition, annihilation, disruption and obstruction. The employees are involved to loss or decrease productivity and profitability of the organization (Chowdhury & Gürtler, 2015). Sabotage is one of the diverse forms of counterproductive work behavior studied in organizational psychology. Employees aggression, frustration at workplace, some personality traits, emotions and the workplace itself can contribute to employee sabotage behaviour (Greenberg, 2011). Employees sabotage behaviour can occurs mostly in events like political drives, wars, tournaments, games or organizational activities like seminars or conferences etc (Serenko, 2020). Sabotage activities are considered undesirable and punishable in certain situations. These activities need proper and careful covering and solution (Umana & Okafor, 2019).

#### **2.5.3.4. Incivility**

The deviant behaviour of low intensity including rude and discourteous behaviours like taking credits for others work, flaming colleagues through nasty emails or voice mail, leaving office before completion of time and spreading rumours about organization among colleagues (Pearson & Porath, 2005). Most of the organizations are facing the issue of incivility today. One of the survey in government sector reported that 71% of all the employees had some experience of practicing incivility in past five years (Cortina et al., 2001). Individuals who are recipient of the incivility are found in psychological distress, low level of job satisfaction and sometime lead to turnover. The organizations itself pay some costs from the practices of incivility. The most important is the difficulty to attract good employees. Reputation of the organization among their competitors is also disturbed (Aquino et al., 2001).

#### **2.5.3.5. Workplace Violence/Aggression**

Aggression in a limit is normal but sometimes it become an issue. Researchers reported that unaddressed and unresolved forms of incivility leads to more severe type of known is workplace violence (Pearson & Porath, 2005). According to the data shared by The National Institute for Occupational Safety and Health (NIOSH) that approximately eighteen thousand people in a week are suffered from violence or aggression by someone at the workplace. Workplace violence leads to a number of consequences like harming psychological well-being

of employees, lower engagement and commitment and it last high turnover intention (LeBlanc & Kelloway, 2002). Intensity of the consequences vary from victim to victim (Barling et al., 2009).

#### **2.5.3.6. Sexual Harassment**

Unwelcome and unwanted sexual advances, request for sexual favours and other verbal or physical conduct of sexual nature comes under the heading of sexual harassment. One of the survey on female workers reported that 24% believe that they are sexually harassed while 58% reported potentially harassing behaviour (Ilies et al., 2003). Men are also sexually harassed. U.S. Equal Employment Opportunity Commission's (EEOC) reported that 15.4% men employees were sexually harassed in 2006 which is increased to 11.6% in 2007 (EEOC, 2000). Victims of sexual harassment reported several negative outcomes like decrease self-esteem, anxiety, stress, low job satisfaction, decrease work engagement and commitment, absenteeism, lower performance and intent to leave the organization (Bowling & Beehr, 2006). Costly legal actions are also the outcome of sexual harassment both for individual and organizations (Zugelder et al., 2006).

#### **2.5.3.7. Withdrawal:**

This type of behaviour include restricts time spent working to less than what is the requirement of the organization. Most of the employees are involved in this behaviour. There are many forms of employee withdrawal behaviour including fake illness, taking unnecessary breaks, absenteeism, late arrival and leaving office early. Employee withdrawal is also considered a form of avoidance or escape behaviour which occurs frequent in certain organizations (Spector et al., 2006).

#### **2.5.3.8. Theft:**

Taking of someone property like money, documents or something belongs to group members (colleagues) or organization. Employee theft behaviour vary from minor to major or serious including taking office supplies to home and embezzlement etc. researchers reported that theft is a widespread issue of most of the organization. Research study by (Bennett & Robinson, 2000) reported that 75% of employees are taking organizational assets home at least one occasion. With the monetary losses the employee theft causes major disruption for

managers or leaders which in turn leads to decrease in morale and further damage to organizational reputation (Grossman, 2003).

Horseplay is another type of counterproductive work behavior added by (Bruursema et al., 2011), this type of behaviour consists of playing games or engaging in some other activities leads to resource wasting. Games during duty hours are played for fun and are considered interesting which spoils the precious duty hours, harm the organization or customers. Counterproductive work behavior stops and inhibits the employees to get the organizational objectives and goals (Spector et al., 2006). People respond to aggression based upon their personality and coping abilities.

Strong personality and abilities to cope and manage the stressful situations is an asset of the employees. Some personality traits like narcissism and agreeableness etc boosts deviant behaviours. Other factors responsible for CWBs in the employees are ambiguous job description, lack of job security, lack of motivation, low self-esteem, injustice, unbalanced policies, poor control system, lack of future opportunities, stressful work environment, lack of performance appraisal system, lack of performance recognition, age related factors, high level of job stress and some demographic factors are also found associated with CWBs. Counterproductive work behavior is associated with productivity, profitability, high turnover and high workplace stress among employees. Negativity in workplace leads to lack of energy, confidence, enthusiasm and optimism. Counterproductive work behavior can be replaced by organizational citizenship behavior, to increase productivity, profitability and energize then to achieve the organizational goals (Aftab & Javeed, 2012; Fatima et al., 2012).

#### **2.5.4. Causes of Counterproductive Work Behaviour**

As a leader or manager, the outmost responsibility is the correct evaluation and diagnose the root of the issue. Mostly it is done through discussion with the individuals involved and their colleagues and correct observation of the employee behaviour. The main purpose of the assessment and diagnose is the appropriate course of action may be taken. Counterproductive work behavior in the organizations are mostly handled by making appropriate rules, regulations and policies with a suitable mechanism that's initially punitive but researchers reported that these practices are not always effective at reducing CWBs (Sackett et al., 2006). It is important to know why employees are engaged in CWBs.

#### **2.5.4.1. Poor Interpersonal Relationships**

Good relationship among employees of the organization is an asset. Positive interpersonal relationship works like a powerful tool in organizational productivity and profitability. Interpersonal conflict in organizational context is associated with number of counterproductive work behaviors like disruption, aggressive behaviour, anger, robbery, withdrawal, production deviance and abuse against others (Hershcovis et al., 2007; Spector et al., 2006).

#### **2.5.4.2. Toxic Leadership**

Poor or unsupportive supervisors are like poison for the employees. The employees will feel insecure while working with unsupportive supervisors. Such type of behaviours is harmful for the promotion of employee performance and it leads to some undesirable employee behaviours. Currently this is known as toxic leadership and management because they affect employee around them negatively (Goldman, 2006). These leaders are also involved in sending mixed messages, changes directions frequently and hesitate in decision making. They cannot make decision till the last possible moment (Appelbaum & Roy-Girard, 2007). The toxic leaders are in search of completion of short-term goals instead of long-term. They don't care about employee's health and wealth. They are responsible of employee's high level of despair, stress, anger, decrease in morale, deprived communication and directions. Toxic leaders make the workplace a hell for employees (Brett & Stroh, 2003).

#### **2.5.4.3. Unsupportive Co-workers**

Incivility, bullying and disruption by the co-workers also leads to counterproductive work behaviors. One of the research reported that 30% of workers have experienced bullying from their fellows (Rayner & Keashly, 2005). Incivility has become an issue for the organizations today. Uncivil and disruptive co-workers compel other employees to be involved in CWBs. Incivility leads to withdrawal, aggressive behaviour, robbery, fake illness and decrease in productivity and profitability (Aquino et al., 2001; Penney & Spector, 2005). Co-workers also creates issues of performance and productivity which in turn deteriorate the whole organizational environment. These minor issues sometimes lead to blunders and become a challenge for the managers.

#### **2.5.4.4. Injustice**

Leader's fairness is a good quality and its associated with a number of positive consequences including increase in morale and motivation, increase in performance and productivity and overall effectiveness (Cropanzano et al., 2007; Rupp & Cropanzano, 2002). Fairness and justice in the organization is also responsible to enhance positive attitudes towards leaders or supervisors. Organizational justice also generate tolerance among employees to accept positive and constructive criticism but on the other hand organizational injustice is also responsible to promote counterproductive work behaviors and other negative job outcomes among employees. Types of organizational justice include distributive justice, procedural justice and interactional justice (Leung et al., 2001).

#### **2.5.4.5. Dissatisfaction in Job**

Job satisfaction is the employees positive and pleasurable attitudes towards their job regarding pay, duties, tasks, promotion, opportunities and behaviours of the seniors and juniors (Khattak & Qureshi, 2020). Researchers worked on job dissatisfaction reported that it is associated with different types of CWBs like theft, absenteeism, tardiness, frequent breaks and production deviance. Job dissatisfaction is the potential cause of CWBs (Hershcovis et al., 2007; Lau et al., 2003; Spector et al., 2006). The leaders must need to work on the assessment and diagnoses of those issues and factors which are directly linked to employee dissatisfaction. The assessment will help the employers to easily control the issues and they will also help to search long staying employees. Job dissatisfaction is the result of not only single issue, but is due to multiple factor including both individual and organizational, situational and environmental etc (Ray et al., 2013).

#### **2.5.4.6. Situational Consequences**

Situational consequences vary from firm to firm and from individual to individual. Likewise employee performance issues come due to lack of skills trainings (Grote & Grote, 2006). Inability of employees may generate frustration and when the employee is unable to attain goal, the frustration may lead to aggressive behaviour. One of the meta-analytic study reported that in organization the existed situational constraints may include resources limitation, lack of persistent skills training, which make the employees able to cope with future demands (Hershcovis et al., 2007). Some other researches are also existed on these constraints. According to them employees who becomes frustrated with the mentioned factors in certain

organization are found involved in counterproductive work behaviors practices like sabotage, aggressive behaviour, resentment, robbery, withdrawal behaviour and production deviance (Spector et al., 2006).

#### 2.5.4.7. Workplace Climate

Workplace environment or climate itself is very important for those working in it either workers or leaders. Workplace establishes some physical and behavioural norms. Workplace climate prepares the employees to tolerate particular behaviours, implement rules, regulations, organizational policies and skills trainings (Williams et al., 1999). Sexual harassment and violation from ethics, rules and regulations are the significant predictors of counterproductive work behaviors (Greenberg, 2002). Punitive actions are needed against those found involved in harassing behaviours. In case of ignoring these behaviours in the workplace leads to more serious consequences. Workplace incivility can be controlled, when there are clear policies and Standing Operating Procedures to treat all seniors and juniors with respect and dignity. Certain organizations have SOPs of conduct like oath taking and signing of contracts which include each and everything regarding duty hours and job descriptions etc (Pearson & Porath, 2005).

According to (Hitlan & Noel, 2009) some personality traits, ostracism and job place exclusion are the predictors of counterproductive work behaviours. Organizational CWBs is positively associated with high level of supervisor exclusion while colleagues' exclusion is also positively associated with interpersonal CWBs. Conflict among employees, supervisor and leaders are responsible for creation of depression, low self-esteem, decreased job satisfaction, decreased work engagement, decreased commitment, increased CWBs and increased turnover intention. (Bruursema et al., 2011) found association between job monotony and various CWBs constructs including sabotage, theft, withdrawal, production deviance and abuse against others.

Job boredom or job monotony is associated with some other unwanted variables like dissatisfaction, reduction in workplace effectiveness, turnover and unclear job duties. Job description play a significant role in the generation of CWBs. Clear, supportive and relevant job duties are the remedies and pacemakers to minimize CWBs. For instance, we can take example of some well-developed organization which have clear and supportive policies. Researchers found different conflicts and stressors responsible for employees CWBs. Perceived organizational injustice, organizational constraints, interpersonal conflicts and employees

bullying are important factors creating CWBs among employees. It is due to interpersonal deviance among the employees.

The interpersonal deviance is generated due to misconduct targets or blaming others for the failure. Some of the employees believed it entitlement with and are exploited. These employees need to misbehave in such ways that looks beneficial to them. On the other hand, organizational deviance is directly related to the organization itself. Deviance in the organization leads to deviance in productivity and profitability. Deviance in the organization or workplace is articulated as lack of interest and long-time absenteeism. Some of the researchers from the field of organization psychology suggested as withdraw behaviour. These deviant or withdrawn types of behaviours in the organization pull out the employees both physically and emotionally. Both types of mentioned interpersonal and organizational deviant behaviours are the momentous predictors of counterproductive work behaviour and turnover intentions among employees. Higher the job satisfaction, there will be less chances of CWBs (Anjum & Parvez, 2013).

#### **2.5.5. Factors Influencing Counterproductive Work Behaviour**

Interpersonal workplace aggressive behaviour is said to be major factors responsible for establishment of both verbal and physical abusive workplace environment. The aggressive behaviour may be as result of personality traits, gender, culture or may be due organizational factors (Albert & Moskowitz, 2014; Arnold et al., 2011; Kamas & Preston, 2021). Researchers reported that aggression in the workplace intends to harm another person (colleagues, seniors or juniors) which in turn harm the organization. This type of behaviour is like an examination for both managers and leaders (Anderson & Bushman, 2002). These all behaviours are connected with deviant behaviours like request for long break, absenteeism, decrease productivity, counterproductive work behaviour and turnover intention (Omar et al., 2011).

Another important factor is the personality of the individual involved in counterproductive work behaviors. The aggressive responses are based on their personality strength and abilities to manage unwanted situations successfully (Michael & Crispen, 2009). Counterproductive work behaviors is associated with high turnover intention, lack of energy, lack of enthusiasm and overall negative workplace environment (Dunlop & Lee, 2004). On the basis of the literature the researchers suggested all the organizations to work on those

components of counterproductive work behaviors where they can improve and reduce CWBs. These results are possible to be achieved if the organization having an assessment system.

## 2.6. Turnover Intention

Almost every well-established organization will try to minimize employee turnover intention to increase organizational performance and productivity. Most of the organizations are successful to found ways of decreasing turnover intention. Employees of such organizations are found satisfied, committed and engaged to their work which in turn prolong employees stay in the organization. Search of skilled, punctual and hard workers employees is a hard task. Not only organizations itself, employment agencies are facing issues regarding high level of employee turnover. They need to recruit young and educated individuals to make a strong workforce with minimum intention to quit.

The leaders and managers must know to establish a clear balance among employee rights, job demands, obligations, job entitlement, privacy, rules regulations and standard operating procedures made by the organization time to time. Managers and employees also must not forget to create a balance between work and family environment. The employees expect better career where the firm care about the employees as well as their family and employee have a better opportunity to work for both family and organizational enhancement and development (Thwala et al., 2012).

### 2.6.1. Turnover Intention a Multistage Process

Turnover Intention is the employee's conscious, careful, and deliberate wilfulness to leave their working organization. Employee turnover is a complex process and it is composed of several stages. It is the willingness to search other jobs in other organizations. Turnover intention is a multifactorial process and it is not only limited to a single reason only (Takase, 2010). In other words, the turnover intention is the employee's willingness to quit the existing job and search for a new job. Most of the employees are leaving their existing jobs for career advancement, higher salaries, chances of promotions, and overall satisfaction.

Sometimes the employees quit their existing jobs when they have an offer from another organization, such type of practices are mostly in skilled and technical workers or high-level managers (Munawar & Sohail, 2017). Turnover is an issue currently faced by many well-developed organizations which have become a severe danger to the survival of these

organizations. Some of the researchers agree that managers and good leaders can decrease turnover intention in employees. Turnover among employees in many organizations is a serious issue and sometimes it becomes threat for the existence of the organization. Every organization should be equipped with some leaders to take steps for the identification and solution of the issues related to employee's turnover intention. Another research study on hotel employees reported that they leave their jobs when they got offer from more attractive hotel (Yang et al., 2012).

Turnover intention in organization is linked with ambiguous job roles, prolonged duty hours, high level of job stress and decreased job satisfaction. Heavy work load or burden of job is the major factor affects employees turnover intention (Coetzee & De Villiers, 2010; McCaughey et al., 2013). When there is heavy work load, then employees will feel stressful which directs them towards annoyance, anxiety, sadness and worry in the workplace. Regular exposure to work stress boosts physical conditions including cardiovascular, respiratory, Psychological and psychosomatic conditions (Jou, 2013; Peter Angerer, 2015). Researchers reported that high self-esteem and high level of emotional intelligence reduces turnover intention. Emotionally intelligent employees are found competent in emotionally loaded conditions because they are fully aware about their strength and weaknesses and they have the ability to control states of negative emotions. Organizational psychologists and researchers found negative relationship between turnover intention and emotional intelligence among employees i.e. emotionally intelligent employees show less turnover intention (Krishnakumar, 2008; Sy et al., 2006).

### **2.6.2. Factors Influencing Turnover Intentions**

Managers and organizations are in search to find out some predictors to minimize turnover and work to retain the employees for a long time. Continuous and recruitment after short time is also spoils both finance and time.

#### **2.6.2.1. Compensation and Fringe Benefits**

According to (Shahzad et al., 2008) there is a positive association between reward practices and performance among university teachers in Pakistan. It is obvious that employee expect a productive compensation system in regard to their skills, knowledge and experience. Compensation and benefits have a strong impact upon turnover intention among employees. Compensation and benefits include all types of payments, allowances, services recognition,

bonuses, commissions, earned leaves, flexible and relax working hours, rewards, pensions, life insurance and all types of echo trainings. Compensation components were found important for employee motivation and retention among Chinees sample.

Allocation of compensation for employees need special attention (Chiu et al., 2002; Nadeem, 2010). Another research study reported that pay and job enrichment policies are positively associated with overall job satisfaction and turn have negative impact upon employee turnover intentions (Long & Perumal, 2014). Fringe benefits, skills development, continuous reward and overall growth are factors positively linked to job satisfaction, and they are also found negatively associated to employees turnover intention (Lobburu, 2012).

#### **2.6.2.2. Skills Trainings**

Every organization need continuous skills development training to increase productivity and achieve the organizational goals easily (Sal & Raja, 2016). Therefore, we can say that training has become very important for the development of any modern organization. Today in the era of high competency, survival of the organization is possible only on working through developed strategies and knowledge sharing exercises. The retention of their position among the competitors is due to having a dedicated, highly developed and enhanced training programmes which nurtures and strengthen their employees' competencies. Regular trainings are like a backbone for achieving high productivity and profitability (Nadeem, 2010; Sal & Raja, 2016).

Emergency Rescue services, law enforcement agencies and security agencies need special attention to arrange regular trainings to enhance employee's skills. The above-mentioned services are also confronted with rescue operation, responding emergencies, crowd control and public management. In case of untrained and unskilled professional, there is a chance of more injuries, deaths and more damages to public properties. Importance of training has become more vital in law enforcement agencies to be one step ahead from the criminals, then they will be able to prevent crimes and having better understanding to manage (Lynton & Pareek, 2011). Regular trainings make the officials to be skilful and capable to cope with new and unwanted situations (Salas et al., 2012).

#### **2.6.2.3. Recognition and Performance Management**

Service and performance recognition and management is important for the achievement of organizational goals. Success and failure are a continuous parallel process. Performance

management programs are strictly linked to philosophy of goal achievement and the responsibility of operation implementation (Abdullah et al., 2012). Every organization has their own method to gather data about employee performance and recognition of the employee services but it is important to note that this information must also be shared with employees to aware them about their weaknesses and strength. Sharing of these information is also necessary for enhancing employee performance (Abdullah et al., 2011; Thwala et al., 2012).

Performance management system is not only limited to the employees, but it also impacts upon the organizational services, products or the whole organization. Lack of performance appraisal system in the organization has a significant impact upon job satisfaction, employee motivation, engagement, counterproductive work behaviour and turnover intentions. When there is no recognition and performance appraisal system in the organizations, the employees will feel less motivated, committed and engaged and there will be more chances to search new job and leave the current job. In the mentioned circumstances the employees may leads towards deviant behavior. Leadership skills and employees' perceptions are also the factors responsible for turnover intentions. Employee service recognition and performance appraisal system vary from organization to organization (Abdullah et al., 2011; Zimmerman & Darnold, 2009).

#### **2.6.2.4. Professional Development**

Professional development in the organization is a dynamic process necessary for the achievement of individual or organizational goals. Professional development is equally important for all managers, leaders, employees and even the organization. The leaders and managers must consider it their responsibility to aware and motivate all the subordinates to assess their career regularly and also get and share information about their work necessary for the development of organization (Chen et al., 2004). For professional development the organization must have clear SOPs, rules and regulation to minimize ambiguity. Before start working on certain projects, the feasibility reports and initial information must be shared with all the contributors regarding interpersonal support, assessment, attention, tutoring, training and overall development.

The utmost responsibility of the organization is to provide an opportunity to enhance employees' skills and develop them professionally. Professional career development is only possible when both employees and organization are on single mission and goal. Provision of more opportunities and working for professional development will increase job satisfaction and

decrease turnover intention (Chang et al., 2007). Another research study by (Muliawan et al., 2009) on US Information System Auditors reported that professional development in the workplace relevant to career progression has a significant impact upon turnover intention. The researcher recommended some protocols for the firms work regularly for career advancement by creating more and more opportunities to lower down turnover intention. Professional career development is a planned, well organized and formal determination necessary for both the employees and organizations to achieve a balanced environment which in turns increases employee retention and decreases turnover intention. Regular opportunities of professional development also have a positive impact on job satisfaction, work engagement and organizational commitment (Lips-Wiersma & Hall, 2007).

#### **2.6.2.5. Interpersonal Relationship**

Employees good and positive interpersonal relationship is vital for organizational development and increase profitability and productivity. Employees attitude and behaviour may be influenced by organizational policies and collectively the employee's behaviour can also become a pacemaker for implementation or variation in certain organizational policies. According to (Eisenberger et al., 2001) high obligation and increased loyalty among employees of those organizations supporting and encouraging their workforce. Another research reported a direct association between supervisor supportive behaviour and employee turnover intention. It is obvious that in case difficulties during work, the supervisors are the only hope to solve, but in case of unsupportive supervisors the employee will feel their-self for the loss (Newman et al., 2012).

Subordinates' interpersonal relationship is necessary for the maintenance of strong and healthy relationship between employees and management in the workplace. Healthy relationship between employees and management is key to increased productivity, job satisfaction, motivation, enthusiasm and self-esteem, which paved way towards achieving targets or goals. Employee and employer relationship is a hot research area for organizational psychologists. When there is a good relationship within the organization, the managers will not spoil their energy in conducting inquiries and making disciplinary actions. In contemporary era most of the organizations are working to provide counselling services and not punishing the employees.

Organizations are getting value due to recognition of engaged, satisfied, committed and enthusiastic employees. Values of these organizations will be not only limited to productivity and profitability but also in terms of customer satisfaction, employee retention and long term stakeholders value (Cook, 2008). Another study by (Greenbaum et al., 2015) reported supervisor's hypocrisy is directly associated with subordinates turnover intention. Employees friendly policies can decrease the expectation of employee turnover. Another researcher suggested a strong association among unsupportive work environment, poor leadership skills of managers and employee turnover. Unsupportive working condition for employees and poor leadership quality in the leaders are the important factors of employee and employer relationship which is mostly ends on employee turnover. In case of unsupportive workplace and incompetent leaders or supervisors, the employee will feel unsafe and they will search and join other organization (Long & Perumal, 2014).

### 2.6.3. Turnover Intention in Emergency Services

High recruitment problems and high turnover in emergency medical services are reported by (Brown et al., 2003). Sensitive job nature of emergency services needs strong medically and psychologically fit individuals. The US government are spending three billion dollars annually on the development of emergency medical services (Chapman et al., 2009). Researchers reported that insufficient amount of pay and benefits is the cause of high turnover intention among emergency medical technicians while they also identified that burnout during job and workplace is the main cause among emergency medical technicians' turnover or job leaving.

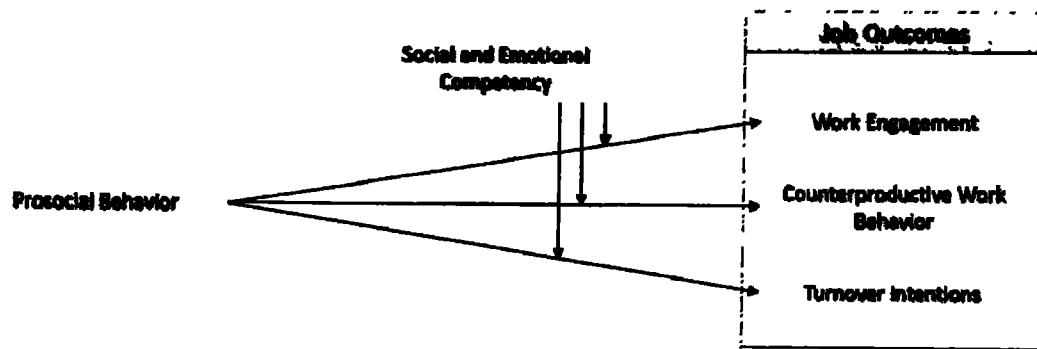
Good working conditions and regular job status can motivate emergency medical technicians to enjoy their job. Most of the emergency paramedics are enjoying their work instead of reporting stress in the workplace and long duty hours. Money was found the top priority of satisfaction in job. Overloaded working hours, limited benefits and low pay are the important factors of turnover among emergency workers (Brown et al., 2003).

U.S Fire administration identified some factors related to turnover and retention of emergency management service professionals in the job, which includes insufficient emotional support after responding to a horrific emergency, family commitments, fear of infection spreading, interpersonal conflicts, excessive and regular trainings. Perceived patient abuse is also a contributing factor (Patterson et al., 2005). Job stress is negatively correlated with job

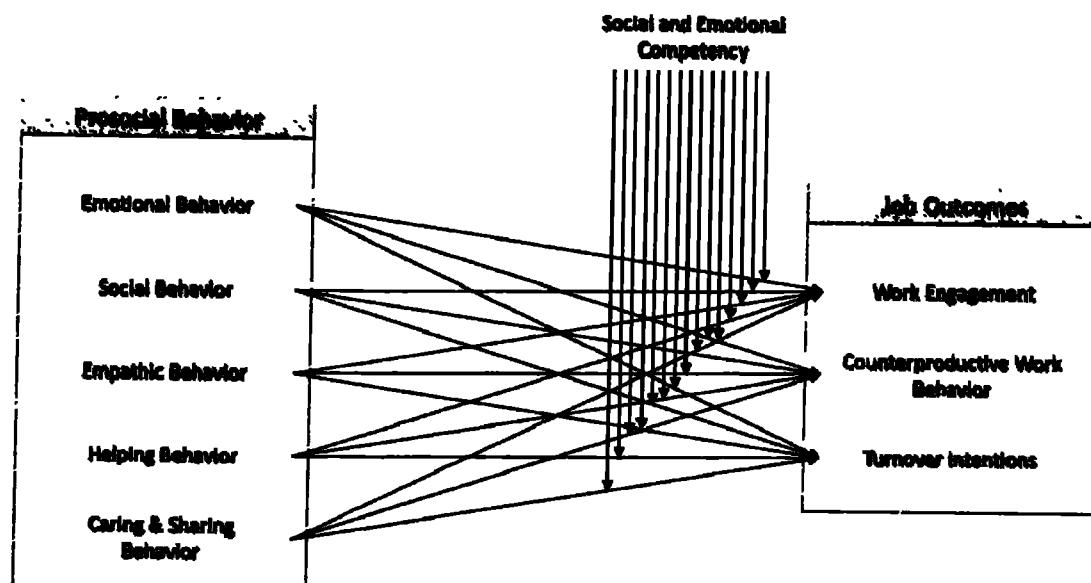
satisfaction, productivity and positively correlated with absenteeism counterproductive work behaviour and turnover intention (Khattak et al., 2021).

Emergency Management System occupational factors like multiple job roles and ambiguous job description are also found to be the potent source of job stress. High level of stress among rescue workers is linked to victim handling activities, responding to horrific situations and challenging working schedules of shifts. Regular exposure and proneness to the mentioned circumstances makes them vulnerable to catch some physical and psychological disorders very easily. These factors affects rescue workers attitude and management of relationship with other colleagues and seniors, which in turn leads to high turnover intention (Flanagan & Flanagan, 2002; Patterson et al., 2005).

## 2.7. Conceptual Frame Work of the Research



**Fig 01: Conceptual Frame work for study I**



**Fig 02: Conceptual Framework for Study II (main study)**

Note: The above conceptual framework is developed upon the suggestions of a foreign evaluator.

### **3. METHODOLOGY**

This section of the research project covers all the practical and experimental work including data collection, data compilation, data entry and data analysis. The chapter also contains information about population, sample, instruments and all the software used for analysis. The current research is composed of two research studies i.e., development and validation of “Prosocial Behaviour Scale for Rescue Workers” (Study-I) and the main study (study-II). Most of the researchers argue that people help one another due to some extrinsic or intrinsic reward like an individual help another person and expects something the beneficiary will return in future (Lauri & Calleja, 2019). This chapter of the current research is composed the whole process including all steps of scale development starting from objectives, population and samples till discussion.

#### **3.1.1. Research Design**

This quantitative research study is based on cross-sectional and correlational research designs. Quantitative researches are less time consuming and cost effective. Benefit of the cross-sectional design is that we can accommodate participants of different age groups and in the current research we have participants from different age groups but the minimum is 25 years.

#### **3.1.2. Objectives**

To develop a culturally specific scale for measuring Prosociality in rescue workers, to validate its factorial structure, validity, and reliability.

#### **3.1.3. Population**

Population is the entire group of that a researcher is interested to select sample from it. A well-defined population is composed of too many individual samples and a well-chosen sample must contains all the characteristics of the population. It is necessary for the researchers to define their research population before selecting research participants (Barreiro & Albandoz, 2001). All the operational employees of Emergency Rescue Service, Rescue 1122 Khyber Pakhtunkhwa including Emergency Medical Technicians (EMT) and Fire Rescuers (FR) is the population for the current study.

### 3.1.4. Sample

Sample for the current research study was selected through purposive sampling technique. Sample was selected from four adjacent districts of Khyber Pakhtunkhwa including Peshawar, Kohat, Hangu and Karak. The sample was consisted of 300 rescue workers working on different positions of Emergency Medical Technician (n=180 %) and Fire Rescuers (n=120 %). Rescue workers responding to emergencies (working in the field, also known as operational rescue workers) were selected to participate in the study. Minimum age limit of the participants was 25 years (minimum age for recruitment in ERS Rescue 1122), qualification ranges from intermediate to MPhil and professional diploma like an associate engineer, health technology, and diploma in information technology. Socioeconomic background of almost all the employees was same due to salary range. Participants for the present study were selected from four adjacent districts including Peshawar, Kohat, Hangu and Karak.

**Table 1**

*Details of population and sample (N=300)*

Districts	All Operation Rescue Workers (EMT and FR)							
	Population				Sample			
	EMT	(n)%	FR	(n)%	EMT	(n)%	FR	(n)%
Peshawar	193	37.40	102	34.00	102	19.76	44	14.66
Kohat	48	9.30	34	11.33	38	7.36	28	9.33
Hangu	40	7.75	28	9.33	23	4.45	19	6.33
Karak	50	9.68	27	9.00	22	4.26	18	6.00

EMT: Emergency Medical Technician, FR: Fire Rescuer

The above table 1 indicates information's regarding population and sample. At population of district Peshawar was composed of 193 EMTs and 109 FR, from which 102 EMTs and 44 FR were selected for participation in the study. Population of District Kohat was composed of 48 EMTs and 38 FR, from which 38 EMTs and 32 FR were selected. Hangu district has 40 EMTs and 28 FR, from which 23 EMTs and 21 FR were selected. District has 50 EMTs and 32 FR from which 22 EMTs and 18 FR were selected for final study.

### 3.1.5. Operational Definitions of the Variables

The operational definitions are required to know about all the techniques and procedures a researcher is using for the measurement of all those variables under investigation in the research project.

### **3.1.5.1. Prosocial Behavior**

Prosocial behavior refers to voluntary actions and behaviors performed by rescue workers that are intended to benefit others, particularly individuals or communities affected by emergencies, disasters, or traumatic events. Prosocial behavior is an individual voluntary response intended to help or benefit other either individual or groups (Eisenberg, 1992).

### **3.1.5.2. Work Engagement**

Employee work engagement refers to the level of emotional, cognitive, and behavioral involvement and investment that rescue workers exhibit in their work. It is characterized by a positive and fulfilling state of mind, where workers are highly motivated, dedicated, and enthusiastic about their roles and responsibilities in the context of rescue work (Schaufeli et al., 2002).

### **3.1.5.3. Counterproductive Work Behavior**

Counterproductive work behavior in rescue workers refers to intentional actions or behaviors that undermine the effectiveness, productivity, or safety of the rescue work environment and are detrimental to the overall goals and mission of the rescue organization (Fagbohungbe et al., 2012).

### **3.1.6. Instruments**

#### **3.1.7. Demographic Data Sheet**

A demographic data sheet is a tool used to collect basic information about individuals or groups. It typically includes questions about age, gender, education, occupation, income, and other relevant demographic factors. Demographic information's including name (optional), age, gender, socioeconomic status, education, marital status, number of children, family status, any chronic physical and mental disorder, working district, duty shift, and duration of service were obtained through the demographic datasheet.

#### **3.1.8. Utrecht Work Engagement Scale**

The Utrecht Work Engagement Scale was developed by Schaufeli & Bakker originally the scale is composed of 24 items. Urdu version of the scale is also available but English version of the scale was used in the current research (e.g., 1. At my job, I feel strong and

vigorous. 2. I am immersed in my work). The short version of the scale is consisting of 9 items, responses range from never (0) to always (6), 1 for almost never, 2 for rarely, 3 for sometimes, 4 for often and 5 for very often. The scale covers three domains of engagement including vigor, dedication, and absorption. Cronbach's Alpha for UWES-9 is 0.93 (Schaufeli et al., 2003).

### **3.1.9. Counterproductive Work behavior Checklist**

The counterproductive behavior checklist was developed by Spector and their colleagues in 2006. The checklist has several versions like 45, 32, and 10 items covering five domains of abuse, production deviance, sabotage, theft, and withdrawal. In the current study, we will use the short form of the checklist composed of 10 items (e.g., 1. Purposely wasted your employer's materials/supplies. 2. Came to work late without permission). Responses on the scale are from never (1) to every day (5), 2 for once or twice, 3 for once or twice in a month and 4 for once or twice in a week. The alpha coefficient of the whole checklist is 0.90 (Spector et al., 2010).

### **3.1.10. Prosocial Behavior Scale for Rescue Workers**

Scale development is a systematic process aimed at creating and validating a measurement tool, such as a scale or questionnaire, to effectively evaluate a specific concept or construct. These scales are widely utilized in various fields like social sciences, psychology, marketing, and other research disciplines to collect data and quantify relevant variables. Factor analysis was used for the scale development. It a widely used statistical procedure in psychometric research and scale development. Its primary purpose is to uncover the hidden structure within a set of observed variables or items. By identifying latent factors, it aims to discern the underlying patterns in the data. During scale development, factor analysis assists in assessing how items cluster together and whether they effectively measure the intended construct. This method allows researchers to refine the scale and ensure it accurately captures the desired traits. This scale was developed in multiple steps. Steps of scale development are elaborated in proper order and details below.

#### **3.1.10.1. Step I: Identification of related constructs**

Identification of related constructs is a crucial step in research and scale development. Initial step of this study was consisting of identification of related theories and constructs. To identify related constructs, it is important to establish a well-defined conceptual framework for your research or study. This involves clearly outlining the main construct of interest and

identifying its key components or dimensions (Morgado et al., 2017). By doing so, you lay the groundwork for recognizing and exploring constructs that are connected to your main construct. It was done by searching and reading relevant literature and existing scales. Different data bases like psych info, ResearchGate, SciHub, Academia, Publons and google scholars were searched for relevant recent research articles. An extensive review was performed to find the existing literature to identify relevant theories, models, and studies that pertain to your construct of interest. It was analysed that how previous researchers have defined and operationalized similar constructs. Relevant terminologies, conceptual frameworks, and measurement methods employed in the literature were identified (Boateng et al., 2018).

### **3.1.10.2. Step II: Generation of item pool**

The generation of an item pool for scale development is a targeted process with the goal of creating a collection of items that effectively measure a specific construct or psychological variable. Creating a comprehensive item pool that encompasses various aspects or dimensions of the construct is required. Diverse approaches may be employed such as brainstorming, gathering expert opinions, or examining existing scales that assess similar constructs. The process need to generate a wide range of items that effectively capture the full scope and intricacies of the construct (Morgado et al., 2017). After searching and reading relevant literature, an initial items pool was generated. Items related to all constructs of prosociality were added. To check suitability of the items committee approach was adopted. A committee comprises of three psychology subject experts (having PhD degree in Psychology and teaching experience), which were requested to check general layout of the items and the overall scale. Suggestions of the committee were carefully considered. Thirty items were finalized in the initial step, which are used for analysis. The generated items were specially devised according to the rescue services environment and the scenarios they are responding. Response categories were made in the light of reviewed literature and existing scales according to the nature of rescue workers' job. All the items were positively worded. No negative or reverse worded item was included due to researchers miscoding, careless responding and error of measurement in data coding and analysis (Sauro & Lewis, 2011; Sonderen et al., 2013).

Language of the generated items was English because participants of the current study were educated 2<sup>nd</sup> the other instruments were also in English language. The items were also checked from English expert for possible linguistic or grammar mistakes. Due to suitability and widely using factors five-point Likert scale was selected for rating and response recording

(Likert, 1932). The five-point Likert scale provide an opportunity to the participants to select level of agreement from the five rating choices and 2<sup>nd</sup> they produce reliable results (Boone & Boone, 2012). Response categories were selected like 1 for never true, 2 for occasionally true, 3 for sometimes true, 4 for often true and 5 for always true. 1 is for lowest response and 5 for highest response. High scores on the scale denotes high prosociality/prosocial behaviour among rescue workers while low score on scale denotes low level of prosociality/prosocial behaviour among rescue workers. Name of the scale was suggested as "Prosocial Behaviour Scale for Rescue Workers".

### **3.1.10.3. Step III: Final Selection of the Items for Data Collection**

The final selection of items in scale development involves carefully choosing the specific items or statements that will be included in the scale to measure the construct of interest. After the initial screening, the remaining items undergo a rigorous evaluation process using statistical techniques and psychometric properties. These techniques, including factor analysis, reliability analysis, and item-total correlations, will be used to identify items that demonstrate strong associations with the construct being measured and exhibit good internal consistency (Morgado et al., 2017). Through these evaluations, the items that best align with the intended purpose of the scale and exhibit robust measurement properties will be selected for inclusion in the final version of the scale. In this step all the suggestions of the expert committee were applied. All double barrel, overlapping, redundant and misleading items were replaced or deleted (Hassan et al., 2021). Some of the items were merged or rephrased. Those items were finalized which were completely relevant to prosociality and emergency rescue service workplace. The process of finalization of items was performed under the guidelines of a supervisor and subject expert committee. Twenty-five items were finalized for data collection and initial factors, reliability, convergent and discriminant validity testing.

### **3.1.10.4. Step IV: Data Collection**

Data collection is the systematic process of gathering information or data from diverse sources for the purpose of analysis, research, decision-making, or other objectives. It entails the organized and methodical collection, recording, and arrangement of data in a structured format and it is applied after final selection of the items (Eastman et al., 1999). This step comprises of data collection on the Prosocial Behaviour Scale for Rescue Workers along with the other two scales required for validation analysis. Three hundred and fifty files including three

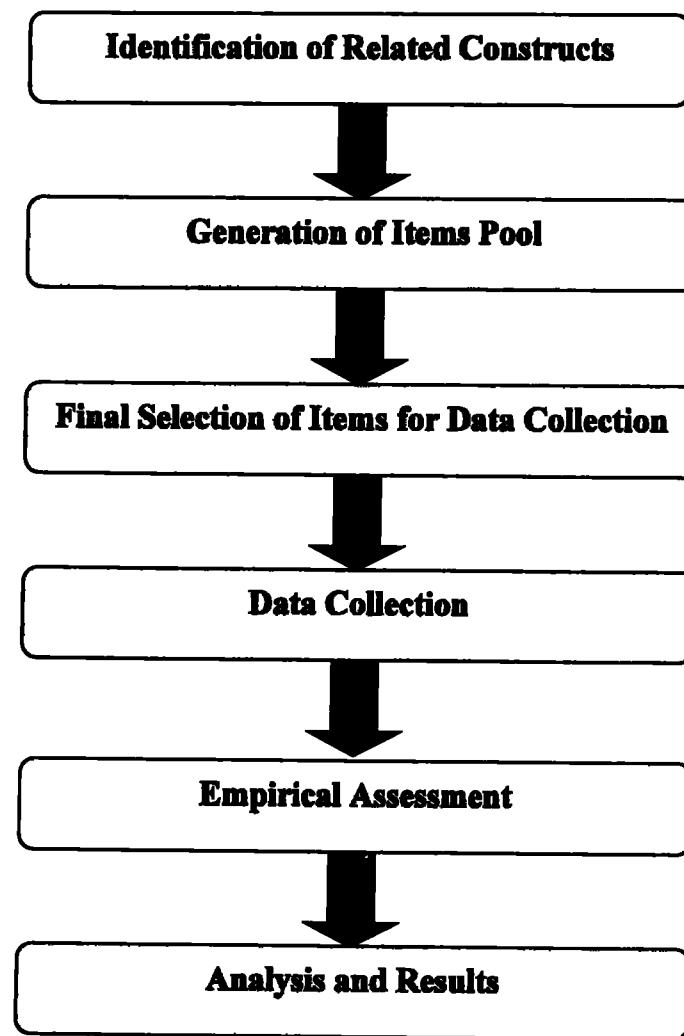
questionnaires, Prosocial Behaviour Scale for Rescue Workers along with copies of Utrecht Work Engagement Scale and Counterproductive Work Behaviour Checklist were distributed in four adjacent districts Peshawar, Kohat, Hangu and Karak. Three hundred and nine questionnaires each were received back with response rate of 88.28%. Some incomplete questionnaires were also removed and three hundred fully filled questionnaires were selected for data entry. The basic aim of this study was to devise an indigenous scale named as "Prosocial Behaviour Scale for Rescue Workers".

### **3.1.10.5. Step V: Empirical Assessment of the Newly devised Scale**

The empirical analysis of items in a newly developed scale entails the examination and assessment of the scale items to establish their reliability and validity. Main purpose of this step is to evaluate the reliability and validity of the items in measuring the construct that the scale intends to assess and to ensure that they consistently and accurately measure the intended construct. This procedure aims to ascertain the accuracy and consistency of the items in measuring the intended construct. This step helps to establish the trustworthiness and usefulness of the scale for research or practical applications (Hassan et al., 2021). All the questionnaires were thoroughly checked. Three hundred questionnaires each, which were complete from all aspects and demographics were selected for final analysis. Data from these questionnaires was put into SPSS data sheet. SPSS Version 24 was used to analyse the data.

### **3.1.10.6. Step VI: Analysis and Results**

The analysis of items in a newly developed scale involves examining and evaluating the individual items within the scale to assess their quality, relevance, and effectiveness in measuring the intended construct through different statistical techniques (Boateng et al., 2018). This step of the current research study was completely based upon item finalization for the scale "Prosocial Behaviour Scale for Rescue Workers" checking, testing and establishment of psychometric properties. Data collected was subjected to different statistical analyses including frequency distribution, exploratory factor analysis, descriptive statistics, reliability check and correlation for establishment of convergent and discriminant validity. Alpha reliability coefficient was computed to establish internal consistency reliability of the scale.

**Flowchart of Scale Development**

### **3.1.11. Procedure**

In the initial stage it was decided to select adjacent districts for data collection, which were Peshawar, Kohat, Hangu and Karak. Written permission was taken from all concerned station officers for data collection. The researcher approached those rescue station personally. Information about shift timing and strength of staff were also taken from station officers to make the visits more fruitful and convenient. Every station officer was informed telephonically before visiting the office. Instructions were given in groups. It was due to time saving and minimize the risk of missing and mishandling of emergencies. All of the participants were made aware about nature and importance of the study. Written informed consent was taken from all the participants. Objectives of this research were discussed openly in front of rescue workers and they were also informed that participation in this research will be on voluntarily and willingly basis. All the related queries of the respondent during data collection process were welcomed and answered by the researcher on the spot. To keep their interest and attachment the researcher was present on the spot with little bit of refreshment like tea and cold drinks. They were also informed to leave the study any time, whenever they want. They were also free to leave in case of emergency call from their area.

All the participants were ensured about confidentiality of the information except for research use or publication in future. After brief introduction and collective instructions to the participants, Prosocial Behaviour Scale for Rescue Workers (PBS-RW), Utrecht Work Engagement Scale and Counterproductive Work behavior Checklist were given. They were requested to read all the items carefully and respond on that category very relevant to them. They were also requested not to over write, tear-out and don't leave any item blank. After returning the questionnaires, the researcher thanked all the staff and station officer in particular for coordination and cooperation. After completion of the required number of fully filled questionnaires, data was entered into SPSS data sheet for analysis. SPSS version 24 was used for analysis. Different analysis techniques like descriptive statistics, exploratory factor analysis and correlation were run. Prosocial Behaviour scale was found reliable, valid to use on those individuals working in emergency situations including disaster handling, road traffic accidents, armed activities and fire issues etc.

### **3.1.12. Data Analysis and Results**

#### **Establishment of Factorial Structure of Prosocial Behaviour Scale for Rescue Workers**

For the establishment of factorial structure of Prosocial Behaviour Scale for Rescue Workers and to check different constructs an exploratory Factor Analysis was run (Fabrigar et al., 1999). Principal Component analysis was computed through varimax rotation by assuming factor independence contributing to this scale. Kaiser-Meyer-Olkin measure of sampling adequacy was found .83 (above the recommended value of .60 (Kaiser, 1974). Bartlett's test of sphericity was also found significant ( $\chi^2 = 4719.252$ ,  $p < .001$ ). Five factors are suggested and extracted by the scree plot and all the remaining items having loading less than .50 (i.e., 60% variance) on their respective factors, were deleted (item 06 and item 20). The final factor loadings obtained from rotated factor solution are summarized with their respective loadings in table 2. Five factors were finalized including emotional, social, empathetic, helping and caring & Sharing. These five factors solution contributed 60.9% of the variance having total items (retained). Each of the factor was given a suitable title according to the theory and studied literature. Factor wise explanation of all the five constructs (subscale) are given below.

##### **3.1.12.1. Factor I: Emotional Behavior**

Subscale of Emotional is composed of 6 items 11, 12, 14, 15, 16 and 17. Items of the subscale emotional explained 17.97% of variance. This subscale is particularly associated with emotional strength and stability of those working in emergencies and are involved to save and rescue people in trouble. This is emotional strength which keeps the rescue workers responding to the situations of crying and dying without any hesitation. High score on this subscale suggests high emotional stability and strength while low score on this subscale suggests decreased emotional strength. Reliability coefficient of the subscale was 0.92 (Cronbach's  $\alpha$ ). An example item includes "Emotionally stable individuals can do better help". It is assumed that emotionally stable individuals are more competent rescue workers.

##### **3.1.12.2. Factor II: Social Behavior**

The second subscale of this newly developed scale is "Social" comprises of 5 items 2, 3, 4, 7 and 10. This subscale explained 12.91% of variance. It is associated with the overall social competence of the rescue workers. Social competence is the ability of an individual to control their emotions and work in the stressful and horrific condition. This is social competence which

keeps rescue workers doing their best in front hundreds of bystanders. High score on this subscale suggests high social competence while low score is associated to low social competence. Reliability coefficient of the subscale was 0.88 (Cronbach's  $\alpha$ ). An example item includes "My job is very close to social responsibility".

### **3.1.12.3. Factor III: Empathetic Behavior**

The third subscale is titled as "Empathetic" composed of 5 items 1, 9, 13, 19 and 25. It explained 12.42% of variance. Items of this subscale are associated with empathy in rescue workers. It was assumed that the rescue workers must be empathetic beyond their job requirements. This is empathy which pulls rescue workers to help people in need beyond relation, race, gender and religion. High scores on this scale denotes high empathy while low score suggests low level of empathy. Reliability coefficient of the subscale was 0.88 (Cronbach's  $\alpha$ ). An example item includes "I get deep satisfaction after responding to a horrific emergency".

### **3.1.12.4. Factor IV: Helping Behavior**

The fourth subscale titled as "Helping" composed of 3 items 5, 8 and 18 which explained 9.67% of variance. This subscale is associated with the helping behaviour of the rescue workers. Rescue workers are help beyond any discrimination. They don't ask about race, culture or religion. High score on this subscale suggests high level of helpfulness while low score is for low helpfulness. Reliability coefficient of the subscale was 0.91 (Cronbach's  $\alpha$ ). An example item includes "I help the people beyond religious discrimination".

### **3.1.12.5. Factor V: Caring & Sharing Behavior**

The fifth and last subscale known as "Caring and Sharing" is composed of 4 items 21, 22, 23 and 24 which explained 7.95% of variance. This subscale is associated with the caring and sharing quality of the rescue workers. They not only the community but they are also help their colleagues and share knowledge with them to prepare them for unwanted emergency situations. High score on the scale suggests high caring and sharing ability while low score is for low caring and sharing ability. Reliability coefficient of the subscale was 0.77 (Cronbach's  $\alpha$ ). An example item includes "I immediately note my friend's discomfort".

**Table 2.***Frequency & Percentage of Participants Demographic Variables (N=300)*

Demographic	Level	n	%
<b>Age</b>	25-29	109	36.30
	30-34	141	47.00
	35-39	50	16.70
<b>Category</b>	EMT	181	60.30
	FR	119	39.70
<b>Duty District</b>	Peshawar	146	48.70
	Kohat	70	23.30
	Hangu	44	14.00
	Karak	40	13.30
<b>Duty Shift</b>	Morning	116	38.70
	Evening	125	41.70
	Night	59	19.70
<b>Socioeconomic Status</b>	Average	269	89.70
	High	31	10.30
<b>Qualification</b>	Master & above	74	24.70
	Bachelor	103	34.30
	Intermediate/	123	41.00
	Diploma		
<b>Marital Status</b>	Single	125	41.70
	Married	173	57.70
	Divorced	2	.70

EMT= Emergency Medical Technician, FR= Fire Rescuers

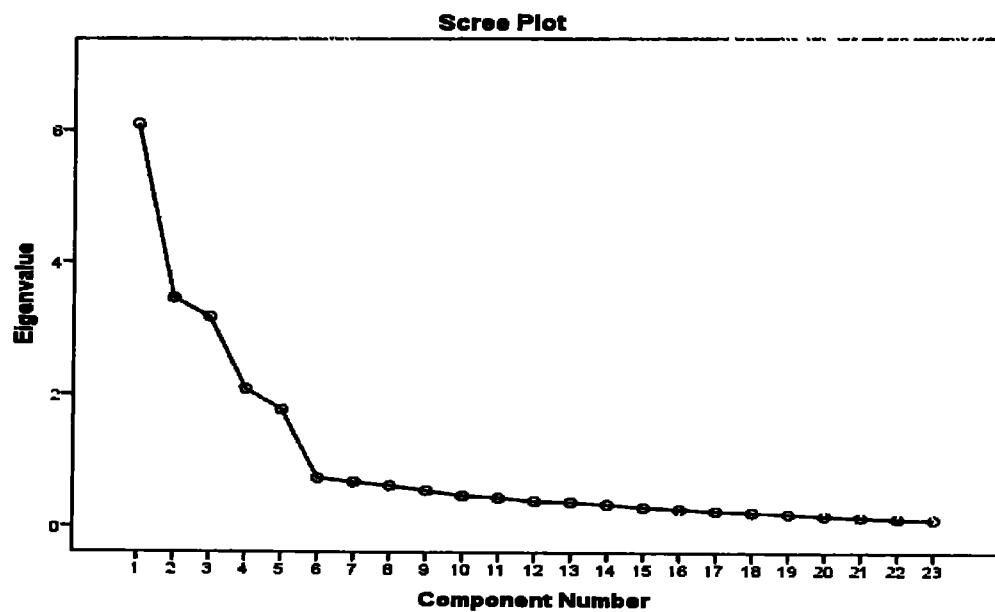
Table 2 composed of frequency and percentage of all the demographic variables including age, designation, duty district, duty shift, socioeconomic status, qualification and marital status of all the participants.

**Table 3.***Factor Structure for PSBS-RW (N=300)*

Item	Factor I: Emotional Behavior	Loadings
16	I immediately got feelings of those in trouble	.899
17	I don't feel sexual attraction while working with female victims.	.879
15	I am always feeling discomfort, when I missed an emergency.	.879
11	High motivated individuals are more fit for rescue job.	.855
12	Emotionally stable individuals can do better help.	.796
14	I immediately put myself in the shoes of those crying for help.	.797
Factor II: Social Behavior		Loadings
04	I also present myself for voluntary activities.	.908
07	Prosociality is necessary among all rescue workers.	.826
10	My job is very close to social responsibility.	.845
03	I always try to console those who called rescue workers for help.	.795
02	I am always empathetic with those in trouble.	.767
Factor III: Empathetic Behavior		Loadings
19	I am always trying for the better care of those in trouble.	.866
09	My ego goes down, when I reached on the spot of emergency.	.851
13	Socially competent individuals can easily control the situations.	.804
01	I get deep satisfaction after responding to a horrific emergency.	.754
25	I am always trying to save property of victims.	.752
Factor IV: Helping Behavior		Loadings
08	I am always available to help those in trouble.	.905
05	I help the people beyond religious discrimination.	.896
18	I try to help others beyond my job timings.	.890
Factor V: Caring & Sharing Behavior		Loadings
24	I am not waiting my turn, when someone called for help.	.781
22	I immediately note my friend's discomfort.	.776
21	I also help my friends and colleagues in the office.	.743
23	I am always available to share knowledge and skills with colleagues.	.705

Extraction: Principal component analysis; Rotation; Varimax

Table 4: To test the dimensionality of the scale exploratory factor analysis was done by obtaining principal component solution. Varimax rotation was used. Extraction of the items was based on eigenvalues and final scree plot. Five factors with loading more than .50 were identified by the SPSS including Emotional, social, empathetic, helping and caring & sharing. Factor loadings on subscale emotional ranging from 0.744 to 0.900. For social factor loadings ranges from 0.683 to 0.933. factor loadings on subscale empathetic ranges from 0.675 to 0.897. For helping the loadings ranges from 0.862 to 0.894 while on the subscale caring and sharing the loadings ranges from 0.591 to 0.745. The five factors accounted variance of 17.97%, 12.91%, 12.42%, 9.67% and 7.95%.

**Scree Plot**

**Figure 3.** Scree plot showing the factor structure of the Prosocial Behaviour Scale for Rescue Workers

### Reliability Analysis

**Table 4:**

*Correlation among subscales of Prosocial Behaviour, Work engagement and Counterproductive Work Behaviour (N=300)*

No	Variables	M	SD	$\alpha$	1	2	3	4	5	6	7
1	Emotional Behavior	23.4	6.05	0.92	-						
2	Social Behavior	19.6	4.90	0.88	0.14*	-					
3	Empathetic Behavior	19.6	5.03	0.88	0.20***	0.16**	-				
4	Helping Behavior	12.3	2.95	0.91	0.22***	0.23***	0.23***	-			
5	Caring & Sharing Behavior	15.2	3.84	0.77	0.13*	0.10	0.37***	0.16**	-		
6	Work Engagement	41.0	7.74	0.93	0.31***	0.25***	0.39***	0.43***	0.42***	-	
7	Counterproductive Work Behaviour	13.5	2.97	0.90	-0.36***	-0.32***	-0.14*	-0.29***	-0.11	-0.26***	-

Note: \*p<.05, \*\*p<.01, \*\*\*p<.001

The above table 05 indicates the validation analysis of the scale. Correlation among all developed constructs was checked with work engagement scale (Schaufeli et al., 2003) for convergent validity and with counterproductive work behaviour (Spector et al., 2010) for discriminant validity. All subscales of the newly developed scale were found positively correlated with the work engagement scale (emotional=0.319, social= 0.251, empathetic=0.396, helping=0.433 and caring & sharing behavior= 0.425) indicating convergent validity. All the subscales of newly developed scale were negatively correlated (emotional= -0.364, social= -0.323, empathetic= -0.323, helping= -0.141, empathetic= -0.112, caring & sharing behavior= -0.112) with the counterproductive work behavior indicating discriminant validity.

**Table 5:**

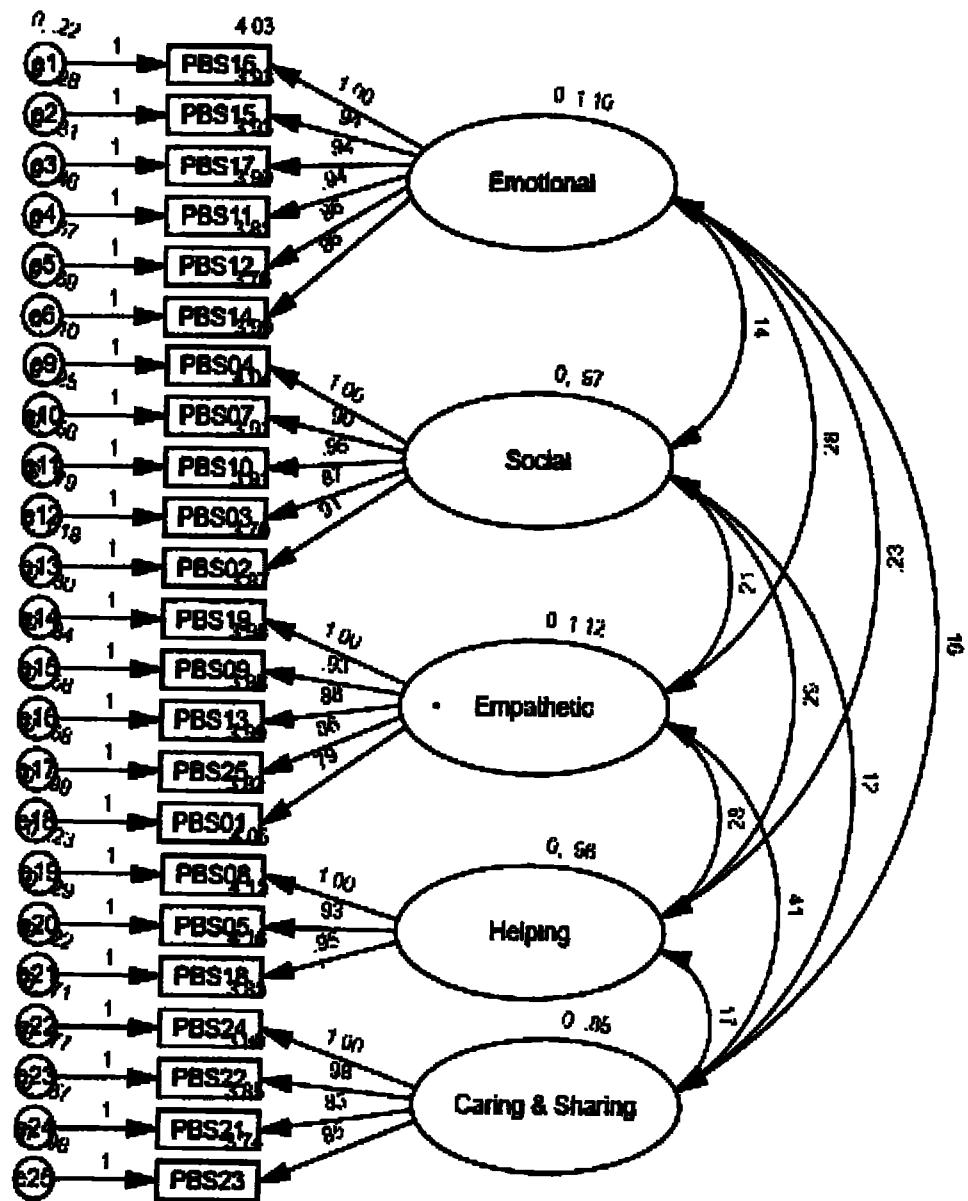
*Correlation among Prosocial Behaviour Scale for Rescue Workers (Total), Work engagement and Counterproductive Work Behaviour (N=300)*

Variables	M	SD	$\alpha$			
Prosocial Behaviour (Total)	96.7	14.65	0.86	-		
Work Engagement	41.0	7.74	0.93	0.58***	-	
Counterproductive Work Behaviour	13.5	2.97	0.90	-0.42***	-0.26***	-

Note: \*p<.05, \*\*p <.01, \*\*\*p<.001

The above table 06 indicates association among all the three variables. Association between Prosocial Behaviour (Total) and Work Engagement was found positive (0.58) while negative association was found between Prosocial Behaviour (Total) and Counterproductive Behaviour (-0.42) and there was also negative correlation (-0.26) between work engagement and counterproductive work behavior.

### Confirmatory Factor Analysis



**FIGURE 4: CFA model of Prosocial Behavior Scale for Rescue Workers.**

**Table 6:***Goodness-of-fit indices for Prosocial Behavior Scale for Rescue Workers*

Goodness-of-fit indices	X <sup>2</sup>	df	RMSEA	RMR	SRMR	CFI	GFI
Prosocial Behavior Scale for Rescue workers	546.15	220	0.070	0.074	0.052	0.927	.865

df: Degree of freedom, RMSEA: Root mean square error of approximation, RMR: Root mean square, SRMR: Standardized root mean square residual, CFI: Comparative fit index, GFI: Goodness of fit index.

Confirmatory factor analysis was performed on a set of 23 items that were extracted and retained from an exploratory factor analysis resulting in five factors. The goodness-of-fit statistics were obtained to evaluate the fit of the model for these five factors and 23 items. The results, presented in Table 7, indicated that all the values fell within excellent and acceptable ranges. The above table 07 indicates values of goodness-of-fit indices for Prosocial Behavior Scale for Rescue Workers. All the above-mentioned values were in the normal range. The chi-square value was found to be significant at the 0.001 level, with a value of 546.150 for 220 degrees of freedom (df). Although the chi-square test is sensitive to sample size and can be influenced by large sample sizes. The recommended range for the chi-square ratio (X<sup>2</sup>/df) is generally 1-2 or 2-3, indicating a good model fit. In this case, the ratio was 546.150/220, which suggests that the model fit was acceptable. The Root Mean Square Error of Approximation (RMSEA) value was 0.070, which is below the recommended threshold of 0.08 for good model fit. Additionally, the values of the Root Mean Square Residual (RMR) and Standardized Root Mean Square Residual (SRMR) were within an acceptable range. Typically, values below 0.08 are considered indicative of a good model fit. The Comparative Fit Index (CFI) and Goodness-of-Fit Index (GFI) both exceeded 0.90, indicating a good model fit. Generally, a CFI and GFI value above 0.90 is considered acceptable.

### **3.1.13. Discussion of Study I**

For the validation of the newly developed scale, it was hypothesized that prosocial behaviour of the rescue workers is positively associated with work engagement. Results of the current study confirmed the hypothesis and prosociality was positively associated with rescue workers work engagement. No research with these variables was found in the emergency rescue services domain however to study the association between these two variables, it was important because engaged employees are reported to be more committed, productive and satisfied (Amin, 2018). The current study explored this association. All those rescue workers who scored high on prosocial behaviour scale also scored high on Utrecht Work Engagement Scale. Earlier studies suggested that prosocial tendency may work as an indicator of work engagement (Abid et al., 2018). Theoretically and empirically prosocial behaviour is associated with a number of positive life outcomes including cognitive, social, emotional and psychological (Alessandri et al., 2014; Carrizales et al., 2019). Earlier Literature reported association among prosocial behaviours and different psychological constructs like caring, sharing helping feeling social and emotional. All these constructs are related to actions (Caprara et al., 2005; Padilla-Walker & Carlo, 2015). While the second hypothesis states that there is a negative association between prosocial behaviour and counterproductive work behaviour among rescue workers. Results of the current study also proved that prosocial behaviors are negatively correlated with counterproductive work behaviour among rescue workers. No relevant study was found during literature search which have studied these variables in the same sampling but relevant studies with different variables and different sample were considered. The second hypothesis also establish the discriminate validity of the scale.

To develop a scale, the process starts by clearly defining the construct through literature review and theoretical frameworks. Generation of a pool of clear and concise items that cover different dimensions of the construct is required (Boateng et al., 2018). Seeking expert opinions to assess content validity, ensuring the items adequately represent the construct. Items with the highest content validity, removing redundancies are selected. Assessment of the scale's reliability by examining its internal consistency, typically using techniques like Cronbach's alpha (Carpenter, 2018). A reliable scale should demonstrate high internal consistency. These steps ensure a well-defined construct, relevant item pool, content validity, and reliable measurement for the intended construct (Morgado et al., 2017).

After carrying EFA the newly validated scale has explored five sub domains of the prosocial behaviour among rescue workers. Literature search, review and previous working experience in rescue department suggests that there are some factors through which some of the rescue workers are working hard and both the workers and clients are satisfied. Most of the prosocial behaviours measurement scales are designed for adolescents (Corell-Garcia et al., 2019), while this scale is designed to measure prosocial behaviours of those adults working in emergency situations.

The most important sub domain of prosocial behaviour is “Emotional”. Individuals working in rescue services need to be emotionally strong because they are responding to situations which are very difficult for a common person to see (Calderón-Tena et al., 2011). They are directly the witnesses of death and dying situations (Gärtner et al., 2019). Prolong exposure to these horrific situations leads to physical, psychological and emotional issues. Rescue workers are using different emotional regulations strategies to cope with the situations. Emotionally and socially competent individuals can help people in trouble more efficiently (Bonanno & Burton, 2013; Donnelly et al., 2016; Gärtner et al., 2019). Emotional self-control is an important quality of those working in emergency situations. It is their ability to overwhelm personal feelings and emotional responses related to the event (Boyatzis et al., 2017).

Another important sub domain of prosocial behaviour is the “Social”. It is also important like emotional. Socially competent individuals are found to be more engaged to their work (Schaufeli & Bakker, 2004). Rescue workers who have the ability to bear the pressure of society and bystanders on the spot of emergency are said to be socially competent. It is a type of social skills, attitudes and knowledge which keeps an individual ready for immediate adaptation and preparation accordingly in the situations they are facing by taking social perspectives (Jones & Kahn, 2017). This construct include relationship with co-workers, victims and relatives of the victims. Self-identification, belongingness and interest in work with co-workers etc. are the related sub factors. Another important phenomenon is making decisions in the emergency. Decision making is also tied with understanding and expressing emotions, social awareness and intellectual ability, ability to communicate and skills to plane immediately (Tipton & Golden, 2011).

Empathy is the third sub-domain of prosocial behavior scale. It is ability of someone to be aware regarding others feelings and emotions which is most critical to those working in emergency situations (Depow et al., 2021; Hoffman, 2008). The rescue workers must be able to

immediately understand feelings and emotions of those crying for help, attentive to relevant cues, reading and understanding of these cues and then planning how to respond the situation in a way of minimum harm (Borry & Henderson, 2020).

Another important sub-domain is the helping behaviour of rescue workers. Cooperation, coordination and effective communication is necessary for rescue workers working on the emergency spot (Yanay et al., 2011). Secure relationships, coordination and collaboration with teammates leads to effective coping strategies (Luthar et al., 2015). These competencies become more important while working in groups or teams. Helping behaviour is not limited to the victims only but it also includes respect of their senior officers, incident commanders etc. coordination and collaboration is a type of ability and skill which keep the rescue workers motivated towards a common goal of responding and accomplishment of emergency without or less physical or economical public harm (Gamberini et al., 2015; Li & Xie, 2017).

Caring and sharing is the next sub-domain of prosocial behaviour of rescue workers. Caring of victims and co-workers and sharing of knowledge, skills and personal protective equipment's with the co-workers is also needed while responding emergencies (Brandt et al., 1995). Caring and sharing may also be coded as relationship skills in future researches (IJzerman et al., 2013). This behaviour may be utilized by senior rescue workers while working with junior teammates. The researchers have also worked to know the effects of prosociality and their implications for the welfare of animals (Rault, 2019).

**Chapter 3****3. METHODOLOGY (Main Study)**

This current research composed of independent, dependent and moderating variables. This research is done in two steps. Step I was development and validation of an indigenous questionnaire for the measurement of rescue workers prosocial behaviour titled as Prosocial Behaviour Scale for Rescue Workers while step II is the main study where we have identified association/ correlation and the moderating effect of moderators on the association of independent and dependent variables. Emergency Rescue Service Rescue 1122 Khyber Pakhtunkhwa was the target organization. This government organization contains both operational (responding to emergencies) and official (working in offices and control rooms) employees. Our target population for this study was all the operational employees because our main concern is related to those working and handling emergency situations like disaster, road traffic accidents, bomb blast and participating in different law in order situations etc.

This chapter contains detailed discussion regarding research strategies, techniques and those methods utilized by the researcher in this research. This chapter is specially to answer those questions developing during foundation of the research. Population, sample, sampling techniques, methods and procedure of data collection, ethical guidelines and instruments for data collections are the sub-headings of this chapter. Importance of this chapter is obvious because it guides the researchers towards selection of appropriate techniques, data collection tools and statistical tests. It needs special care and attention from the researchers to find suitable answers for the research questions.

### **3.2.1. Research Design**

It is the process of planning, collecting, analysing and interpreting data. It is the overall framework of methods and techniques necessary for the completion of a research study. It must be in line with the objectives of the study and type of the analysis either qualitative or quantitative. It allows the investigators to make their research methods in line with subject matters. Mostly the research design is the composition of data collection, measurement and analysis (Bloomfield & Fisher, 2019). This quantitative research study is based on cross-sectional and correlational research designs. Quantitative researches are less time consuming and cost effective. Benefit of the cross-sectional design is that we can accommodate participants

of different age groups and in the current research we have participants from different age groups but the minimum is 25 years.

### **3.2.2. Location of the Current Study**

This research was carried out in different rescue stations of four adjacent districts including Peshawar, Kohat, Hangu and Karak. Inhabitants of these districts are enjoying free international level rescue services with response time of seven minutes.

### **3.2.3. Population**

Population is composed of all those people, events or things in which the researcher is interested to study. Population including people, things and events is based upon the common characteristics (Sekaran, 2003). All operational employees of Emergency Rescue Service, Rescue 1122 Khyber Pakhtunkhwa is the population for the current study. It includes all those rescue workers which are bound to respond emergencies, whenever called by someone help. Examples are emergency medical technicians (EMT) and Fire Rescuers (FR) etc.

### **3.2.4. Sample**

Probability and non-probability sampling techniques are recommended and widely used in researches conducted by social scientists (Sekaran, 2003). The sample for this current research comprised of 385 rescue workers from the emergency rescue service rescue 1122 Khyber Pakhtunkhwa. The sample size was calculated through an online sample size calculator and through the formula developed by (Mills & Gay, 2019). The sample was selected through purposive sampling technique. This technique is used due to the purpose and circumstances of the study. Rescue workers responding to emergencies (also known as operational rescue workers) were selected to participate in the study. Minimum age limit of the participants was from 25 years (minimum age for recruitment), qualification of the participants ranges from intermediate to MPhil and professional diploma like an associate engineer, health technology, and diploma in information technology. Participants for the present study were selected from the adjacent districts like Peshawar, Hangu, Kohat, Karak, Bannu, etc until we reached 385.

#### **3.2.4.1. Inclusion Criteria**

Only male operational rescue workers having minimum age of 25 years, having at least 12 years of academic/professional education were included to participate. No upper age limit

was specified due to different service duration but minimum age was specified 25 years due to minimum age-related criteria of recruitment in rescue service.

#### **3.2.4.2. Exclusion Criteria**

In the scope of this study, certain groups of individuals were excluded from participation, specifically female rescue workers, office workers, and those with less than 12 years of formal education, such as security guards and drivers. The exclusion of female rescue workers was based on their limited representation in the overall population, as well as their restricted availability within specific districts and positions, primarily as emergency medical technicians (EMTs) and computer operators (COs). This exclusionary approach was implemented to ensure a more focused examination of the targeted population and to minimize potential confounding factors that could arise from the inclusion of these specific groups.

#### **3.2.5. Operational Definitions of the Variables**

The significance of operational definition in research cannot be overstated. Operational definitions are required by the researchers to report the way how the researcher will investigate or work out on all those variables of the study which are under consideration. Main purpose of the operational definitions are to bring clarity and consistency to the study by precisely defining the variables or concepts being studied. It provides a clear, specific, and measurable explanation of how these variables will be observed, measured, and manipulated throughout the research process.

##### **3.2.5.1. Prosocial Behavior**

Prosocial behavior refers to voluntary actions and behaviors performed by rescue workers that are intended to benefit others, particularly individuals or communities affected by emergencies, disasters, or traumatic events. Prosocial behavior is an individual voluntary response intended to help or benefits other either individual or groups without expecting something in return (Eisenberg, 1992).

##### **3.2.5.2. Social and Emotional competence**

Social and emotional competence refers to the ability of rescue workers to understand, manage, and effectively navigate their own emotions and the emotions of others, while demonstrating positive interpersonal skills and maintaining professional relationships within the

context of their rescue work. Social competence is the ability to recognize, comprehend, and utilize emotional information, while emotional competence emphasizes the capacity to identify, understand, and apply emotional information (Zych et al., 2018).

### **3.2.5.3. Work Engagement**

Employee work engagement refers to the level of emotional, cognitive, and behavioral involvement and investment that rescue workers exhibit in their work. It is characterized by a positive and fulfilling state of mind, where workers are highly motivated, dedicated, and enthusiastic about their roles and responsibilities in the context of rescue work. Work engagement is the employee's positive, enjoyable, and enthusiastic behavior that demonstrates strength, satisfaction, and a strong focus on work-related activities (Schaufeli et al., 2003).

### **3.2.5.4. Counterproductive Work Behavior**

Counterproductive work behavior in rescue workers refers to intentional actions or behaviors that undermine the effectiveness, productivity, or safety of the rescue work environment and are detrimental to the overall goals and mission of the rescue organization (Fagbohungbe et al., 2012).

### **3.2.5.5. Turnover Intention**

Turnover intention in rescue workers refers to the employee's subjective evaluation and intention to voluntarily leave their position or organization within the rescue field, indicating a potential desire for alternative career opportunities or a change in work environment (Takase, 2010).

### **3.2.6. Methods of Data Collection**

Valid and reliable instruments were used for data collection and quantitative data analysis. Request through email was sent to authors of these scales for permission to use the scales and provide a copy with manual. All those cooperated and permitted the researcher by providing soft copies of the scales. Overall, five scales were needed in which one of them was developed and validated by the researcher in study I. All these five scales accompanied with demographic data sheet and individual consent form, were attached to make a single booklet. All the booklets were distributed by the researcher personally. The researcher present himself during the entire data collection process to answer queries of the participants on the spot.

### **3.2.7. Instruments**

#### **3.2.7.1. Demographic Data Sheet**

Demographic information including name (optional), age, gender, socioeconomic status, education, marital status, number of children, family status, number of siblings, birth order, any chronic physical and mental disorder, working district, duty shift, and duration of service were obtained through the demographic datasheet.

#### **3.2.7.2 . Prosocial Behavior Scale for Rescue Workers**

Prosocial behaviour scale for rescue workers was developed in the initial step or study I. the scale is comprised of 23 items with no reverse scoring item. Response categories of the scale ranges from 1-5. 1 for never true, 2 for occasionally true, 3 for sometimes true, 4 for often true and 5 for always true. 1 is for lowest response and 5 for highest response. Reliability coefficient of the scale (overall) is 0.86 while reliability coefficient for sub scale emotional is 0.92, Social is 0.88, Empathetic is 0.88, Helping is 0.91, caring and sharing is 0.77. High scores on the scale denotes high prosociality/prosocial behaviour among rescue workers while low score on scale denotes low level of prosociality/prosocial behaviour among rescue workers (Khattak, Bhati & Wazir, 2022).

#### **3.2.7.3. Social and Emotional Competencies Questionnaire (SEC-Q) (Permission taken to use the scale)**

The social and emotional competencies questionnaire (SEC-Q) was developed by Zych, et al (2018). The scale is composed of 16 items with a five-point Likert Scale ranging from 1 “strongly disagree” to 5 “strongly agree”, 2 for somewhat disagree, 3 for neither agree nor disagree and 4 for somewhat agree (e.g., 1. I know how to label my emotions. 2. I have good relationships with my classmates or workmates). The reliability coefficient of young adults was 0.87 and for adolescents was 0.80 (Zych et al., 2018)

#### **3.2.7.4. Utrecht Work Engagement Scale**

The Utrecht Work Engagement Scale was developed by Schaufeli & Bakker. Originally the scale is composed of 24 items (e.g., 1. At my job, I feel strong and vigorous. 2. I am immersed in my work). The scale is also available in translated Urdu version but in the current study English version of the scale was used. The short version of the scale is consisting of 9

items, responses range from never (0) to always (6) 1 for almost never, 2 for rarely, 3 for sometimes, 4 for often and 5 for very often. The scale covers three domains of engagement including vigor, dedication, and absorption. Cronbach's Alpha for UWES-9 is 0.93 (Schaufeli et al., 2003).

### **3.2.7.5. Counterproductive Work behavior Checklist (Permission taken to use the scale).**

The counterproductive work behavior checklist was developed by Spector and their colleagues in 2006. The checklist has several versions like 45, 32, and 10 items covering five domains of abuse, production deviance, sabotage, theft, and withdrawal. In the current study, we used short form of the checklist composed of 10 items (e.g., 1. Purposely wasted your employer's materials/supplies. 2. Came to work late without permission). Responses on the scale are from never (1) to every day (5) 2 for once or twice, 3 for once or twice in a month, 4 for once or twice in a week. The alpha coefficient of the whole checklist is 0.90 (Spector et al., 2010).

### **3.2.7.6. Turnover Intention Scale (Permission taken to use the scale).**

Turnover Intention scale is composed of 15 items. It is developed by Roodt in 2004, having both short and long versions. Short version of the scale (used in the current research) was validated in 2013 having six items (e.g., how often have you considered leaving your job?) Responses of the scale are recorded through five-point Likert ranges from never (0) to always (5). The alpha coefficient of the six items scale is 0.80 (Bothma & Roodt, 2013).

## **3.2.8. Quantitative data Analysis Techniques**

All the numerical data collected by the researchers need analysis through different quantities techniques. The main advantages of the quantities analysis include accuracy, less biased and detailed explanation while the disadvantages include restriction of information and dependable on type of questions. The researchers are using quantitative data analysis to gather information about the difference or association between the groups, association and relationship between variables and to test the hypothesis. Quantitative analysis may be descriptive or inferential in nature (Meyer et al., 2005). Data was collected through valid and reliable scales and after that was added to SPSS (Version 24) data sheet. Appropriate procedures were adopted for data analysis. Descriptive and inferential statistics were used. Descriptive statistics includes

frequencies, percentage, mean and standard deviation were analyzed while in inferential statistics and moderation analysis etc. were performed (Perosanz & Hayes, 2021).

### **3.2.9. Ethical Considerations**

Almost in all types of research studies the researcher must be adhere to some codes of conducts before starting data collection. These codes are made for the safety of living beings, protects their rights, enhancing validity of the research and also to maintain scientific integrity of the research. Ethics in research insures voluntary, informed and safe participation of the participants in the research (Fisher & Anushko, 2008).

Ethical approval for the current research study was attained from the Ethical Review Board of the International Islamic University Islamabad Pakistan and written permission was taken from all concerned station officers of Emergency Rescue Service, Rescue 1122 Khyber Pakhtunkhwa from where the data was intended to be collected. Before actual data collection, informed consent from all the participants was taken with proper instructions.

### **3.2.10. Procedure**

After taking written permission from concerned Station Officers for data collection the researcher approached those rescue station personally. Information about shift timing and strength of staff were taken from station officers. Station officers were also informed telephonically before visiting their station. Instructions were given collectively to save time and minimize the risk of missing an emergency. After awareness regarding nature, importance and objectives of the study, written informed consent was taken from station officers and participants. Objectives of this research were discussed openly and queries of the respondent before, during and after process of data collection were answered by the researcher to keep them confidence and attach their interest in the study. They were also informed to leave the study, if they are called for emergency duty. All the rescue workers were ensured about confidentiality of the data except for publication.

After brief introduction and collective instructions booklets containing Prosocial Behaviour Scale for Rescue Workers (PBS-RW), Social and Emotional Competencies Questionnaire (SEC-Q), Utrecht Work Engagement Scale, Counterproductive Work behavior Checklist and Turnover Intention Scale were distributed among the participants. Participants were also kept confident about data sharing with their department officials. Data will be kept full confidential and will be not shared even with station officers and will be only used for research purpose. The whole process of data collection and instruction was accomplished during working shifts of the rescue workers with no time limit due to their sensitive and restrictive job descriptions.

## Chapter 4

## 4. RESULTS

**Table 7:***Details of population and sample of the main study (N=385)*

Districts	All Operational Rescue Workers (EMT and FR)							
	Population				Sample			
	EMT	(n) %	FR	(n) %	EMT	(n)%	FR	(n)%
Peshawar	193	32.82	119	30.90	130	22.10	64	16.62
Kohat	50	8.50	42	10.90	41	6.97	34	8.83
Hangu	48	8.16	33	8.57	33	5.61	27	7.01
Karak	55	9.35	38	9.87	38	6.46	28	7.27

EMT: Emergency Medical Technician, FR: Fire Rescuer

The above table 8 contains information regarding population and sample. The population of district Peshawar was composed of 193 EMTs and 109 FR, from which 130 EMTs and 64 FR were selected for participation in the study. Population of District Kohat was comprises of 50 EMTs and 41 FR, from which 42 EMTs and 34 FR were selected. Population of Hangu district has 48 EMTs and 33 FR, from which 33 EMTs and 27 FR were selected. District Karak has 55 EMTs and 38 FR from which 38 EMTs and 28 FR were selected for final study.

**Table 8.***Frequency and Percentage of Participants Demographic Variables (N=385)*

<i>Demographic</i>	<i>Level</i>	<i>n</i>	<i>%</i>
<b>Age</b>	<b>25-29</b>	154	<b>40.00</b>
	<b>30-34</b>	159	<b>41.30</b>
	<b>35-39</b>	72	<b>18.70</b>
<b>Category</b>	<b>EMT</b>	235	<b>61.00</b>
	<b>FR</b>	150	<b>39.00</b>
<b>Duty District</b>	<b>Peshawar</b>	182	<b>47.30</b>
	<b>Kohat</b>	84	<b>21.80</b>
	<b>Hangu</b>	62	<b>16.10</b>
	<b>Karak</b>	57	<b>14.80</b>
<b>Duty Shift</b>	<b>Morning</b>	139	<b>36.10</b>
	<b>Evening</b>	166	<b>43.10</b>
	<b>Night</b>	80	<b>20.80</b>
<b>Socioeconomic Status</b>	<b>High</b>	46	<b>11.90</b>
	<b>Average</b>	326	<b>84.70</b>
	<b>Low</b>	13	<b>3.40</b>
<b>Qualification</b>	<b>Master &amp; above</b>	107	<b>27.80</b>
	<b>Bachelor</b>	136	<b>35.30</b>
	<b>Intermediate/</b>	<b>Professional</b>	142
	<b>Diploma</b>		<b>36.90</b>
<b>Marital Status</b>	<b>Single</b>	156	<b>40.50</b>
	<b>Married</b>	227	<b>59.0</b>
	<b>Divorced</b>	2	<b>.50</b>

EMT= Emergency Medical Technician, FR= Fire Rescuer

Table 9 composed of frequency and percentage of all the demographic variables including age, designation, duty district, duty shift, socioeconomic status, qualification and marital status of all the research participants.

### Correlation Analysis

**Table 9**

**Correlation Matrix**

*IV (EB, SB, EB, HB, CSB) DV (WE) (N=385)*

No	Variables	1	2	3	4	5	6
1	Emotional Behavior	-					
2	Social Behavior	0.16**	-				
3	Empathetic Behavior	0.20**	0.14**	-			
4	Helping Behavior	0.25**	0.15**	0.21**	-		
5	Caring & Sharing Behavior	0.08	0.10*	0.33**	0.19**	-	
6	Work Engagement	0.11*	0.18**	0.17**	0.11**	0.11*	-

Note: \*p<.05, \*\*p <.01, \*\*\*p<.001

The above table 09 shows correlation among all five independent variables and work engagement as dependent variables. Significant positive correlation is reported among all five independent variables and work engagement as (DV).

**Table 10****Correlation Matrix****IV (EB, SB, EB, HB, CSB) DV (CWBs) (N=385)**

No	Variables	1	2	3	4	5	6
1	Emotional Behavior	-					
2	Social Behavior	0.16**	-				
3	Empathetic Behavior	0.20**	0.14**	-			
4	Helping Behavior	0.25**	0.15**	0.21**	-		
5	Caring & Sharing Behavior	0.08	0.10*	0.33**	0.19**	-	
6	Counterproductive Work Behavior	-.19**	-.22**	-.08	-.19**	-.05	-

Note: \*p&lt;.05, \*\*p &lt;.01, \*\*\*p&lt;.001

The above table 10 shows correlation among all five independent variables and counterproductive work behavior as dependent variables. Significant negative correlation (emotional, social and helping behavior) while insignificant negative association (empathetic and caring & sharing behavior) is reported with counterproductive work behavior as (DV).

**Table 11*****Correlation Matrix******IV (EB, SB, EB, HB, CSB) DV (TOIs) (N=385)***

No	Variables	1	2	3	4	5	6
1	Emotional Behavior	-					
2	Social Behavior	0.16**	-				
3	Empathetic Behavior	0.20**	0.14**	-			
4	Helping Behavior	0.25**	0.15**	0.21**	-		
5	Caring & Sharing Behavior	0.08	0.10*	0.33**	0.19**	-	
6	Turnover Intentions	-.02	-.06	-.12*	-.01	-.19*	-

Note: \*p&lt;.05, \*\*p &lt;.01, \*\*\*p&lt;.001

The above table 11 shows correlation among all five independent variables and turnover intentions as dependent variables. Significant negative correlation (empathetic, and caring & sharing behavior) while insignificant negative association (emotional, social and helping behavior) is reported with turnover intentions as (DV).

### Moderation Analysis

**Table 12**

*Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>P</i>
.23	.054	1.76	7.25	3.00	381.00	.01

The above analysis shows overall fitness of the model ( $F = 7.25, p < .01$ ) such that social and emotional competency (MV) moderates' emotional behavior (IV) and employee work engagement (DV) in rescue workers. The correlation ( $R = .23$ ) among emotional behavior, social and emotional competency and employee work engagement. Emotional behavior and social and emotional competency accounts for 5.4% of variance in employee work engagement.

**Table 13***Coefficients and Moderation (IV= EB, MV= SEC & DV= UWES)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.90	.07	57.63	.00	3.78	4.04
Emotional Behavior	.16	.07	2.23	.03	.02	.30
Social & Emotional Competence (SEC)	.30	.13	2.31	.02	.05	.57
EB X SEC	.43	.14	3.06	.02	.16	.71

Analysis in the above table No, 13 shows that rescue workers emotional behaviors significantly ( $t (381) = 2.23, p < .03$ ) affect employee work engagement; and social and emotional competency also significantly ( $t (381) = 2.31, p < .02$ ) affects employee work engagement. The interaction between emotional behavior and social and emotional competency was also significant ( $t (381) = 3.06, p < .02$ ) indicating a moderating effect (B > 0, lies between .16 & .71 CI) of social and emotional competency on emotional behavior and employee work engagement.

**Table 14***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.26	.069	1.73	9.51	3.00	381.00	.0000

The above analysis shows overall fitness of the model ( $F = 9.51, p < .0000$ ) such that social and emotional competency (MV) moderates' social behavior (IV) and employee work engagement (DV) in rescue workers. The correlation ( $R = .26$ ) among social behavior, social and emotional competency and employee work engagement. Social behavior and social and emotional competency accounts for 6.9% of variance in employee work engagement.

**Table 15***Coefficients and Moderation (IV= SB, MV= SEC & DV= UWES)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.91	.07	58.36	.00	3.78	4.05
Social Behavior	.25	.07	3.62	.03	.11	.39
Social & Emotional Competence (SEC)	.38	.13	2.95	.03	.12	.64
SB X SEC	.35	.13	2.54	.01	.08	.63

Analysis in the above table No, 15 shows that rescue workers social behavior significantly ( $t$  (381) = 3.62,  $p < .003$ ) affect employee work engagement; and social and emotional competency also significantly ( $t$  (381) = 2.95,  $p < .03$ ) affects employee work engagement. The interaction between social behavior and social and emotional competency was also significant ( $t$  (381) = 2.54,  $p < .01$ ) indicating a moderating effect (B > 0, lies between .08 & .63 CI) of social and emotional competency on social behavior and employee work engagement.

**Table 16***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.24	.057	1.75	7.77	3.00	381.00	.0000

The above analysis shows overall fitness of the model ( $F = 7.77, p < .0000$ ) such that social and emotional competency (MV) moderates' empathetic behavior (IV) and employee work engagement (DV) in rescue workers. The correlation ( $R = .24$ ) among empathetic behavior, social and emotional competency and employee work engagement. Empathetic behavior and social and emotional competency accounts for 5.7% of variance in employee work engagement.

**Table 17***Coefficients and Moderation (IV= EB, MV= SEC, DV= UWES)*

Model	B	SE	t	p	LLCI	ULCI
Constant	<b>3.88</b>	.06	56.34	.00	3.75	4.02
Empathetic Behavior	.26	.07	3.48	.05	.11	.41
Social & Emotional Competence (SEC)	.33	.13	2.49	.01	.07	.60
EB X SEC	.32	.12	2.49	.01	.06	.57

Analysis in the above table No. 17 shows that rescue workers empathetic behavior significantly ( $t (381) = 3.48, p < .05$ ) affect employee work engagement; and social and emotional competency also significantly ( $t (381) = 2.49, p < .01$ ) affects employee work engagement. The interaction between empathetic behavior and social and emotional competency was also significant ( $t (381) = 2.49, p < .01$ ) indicating a moderating effect (B > 0, lies between .06 & .57 CI) of social and emotional competency on empathetic behavior and employee work engagement.

**Table 18***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.22	.050	1.77	6.70	3.00	381.00	.02

The above analysis shows overall fitness of the model ( $F= 6.70, p < .02$ ) such that social and emotional competency (MV) moderates helping behavior (IV) and employee work engagement (DV) in rescue workers. The correlation ( $R = .22$ ) among helping behavior, social and emotional competency and employee work engagement. Helping behavior and social and emotional competency accounts for 5.0% of variance in employee work engagement.

**Table 19***Coefficients and Moderation (IV= HB, MV= SEC, DV= UWES)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.91	.06	57.60	.00	3.77	4.04
Helping Behavior	.15	.07	2.14	.03	.01	.29
Social & Emotional Competence (SEC)	.35	.13	2.67	.07	.09	.61
HB X SEC	.39	.15	2.61	.09	.09	.68

Analysis in the above table No, 19 shows that rescue workers helping behavior significantly ( $t(381) = 2.14, p < .03$ ) affect employee work engagement; and social and emotional competency also significantly ( $t(381) = 2.67, p < .07$ ) affects employee work engagement. The interaction between helping behavior and social and emotional competency was also significant ( $t(381) = 2.61, p < .009$ ) indicating a moderating effect (B > 0, lies between .09 & .68 CI) of social and emotional competency on helping behavior and employee work engagement.

**Table 20***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.21	.048	1.77	6.52	3.00	381.00	.03

The above analysis shows overall fitness of the model ( $F= 6.52, p < .03$ ) such that social and emotional competency (MV) moderates caring & sharing behavior (IV) and employee work engagement (DV) in rescue workers. The correlation ( $R = .21$ ) among caring & sharing behavior, social and emotional competency and employee work engagement. Caring & sharing behavior and social and emotional competency accounts for 4.8% of variance in employee work engagement.

**Table 21***Coefficients and Moderation (IV= CSB, MV=SEC, DV= UWES)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.90	.06	57.46	.00	3.77	4.04
Caring & Sharing Behavior	.12	.06	1.93	.05	-.02	.24
Social & Emotional Competence (SEC)	.47	.13	3.40	.07	.19	.74
CSB X SEC	.35	.13	2.68	.07	.09	.61

Analysis in the above table No, 21 shows that rescue workers caring & sharing behavior significantly ( $t (381) = 1.93, p < .05$ ) affect employee work engagement; and social and emotional competency also significantly ( $t (381) = 3.40, p < .07$ ) affects employee work engagement. The interaction between caring & sharing behavior and social and emotional competency was also significant ( $t (381) = 2.68, p < .07$ ) indicating a moderating effect (B > 0, lies between .09 & .61 CI) of social and emotional competency on caring & sharing behavior and employee work engagement.

**Table 22***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.22	.052	.078	7.02	3.00	381.00	.01

The above analysis shows overall fitness of the model ( $F = 7.02, p < .01$ ) such that social and emotional competency (MV) moderates' emotional behavior (IV) and counterproductive work behavior (DV) in rescue workers. The correlation ( $R = .22$ ) among emotional behavior, social and emotional competency and counterproductive work behavior. Emotional behavior and social and emotional competency accounts for 5.2% of variance in counterproductive work behavior.

**Table 23***Coefficients and Moderation (IV=EB, MV= SEC, DV= CWBs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	1.31	.01	92.09	.00	1.28	1.34
Emotional Behavior	-.06	.01	-3.97	.01	-.09	-.03
Social & Emotional Competence (SEC)	.07	.02	2.54	.01	.01	.12
EB X SEC	-.01	.02	-.59	.5	-.07	.04

Analysis in the above table No. 23 shows that rescue workers emotional behavior has significantly ( $t (381) = -3.97, p < .01$ ) negative affect on counterproductive work behavior; and social and emotional competency also significantly ( $t (381) = 2.54, p < .01$ ) affects counterproductive work behavior. The interaction between emotional behavior and social and emotional competency was not significant ( $t (381) = -.59, p < .5$ ) indicating no moderating effect (B < 0, lies between -.07 & .04 CI) of social and emotional competency on emotional behavior and counterproductive behavior.

**Table 24***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.28	.079	.076	10.91	3.00	381.00	.0000

The above analysis shows overall fitness of the model ( $F = 10.91, p < .0000$ ) such that social and emotional competency (MV) moderates' social behavior (IV) and counterproductive work behavior (DV) in rescue workers. The correlation ( $R = .28$ ) among social behavior, social and emotional competency and counterproductive work behavior. Rescue workers social behavior and social and emotional competency accounts for 7.9% of variance in counterproductive work behavior.

**Table 25***Coefficients and Moderation (IV= SB, MV= SEC, DV= CWBs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	1.31	.01	93.54	.00	1.28	1.34
Social Behavior	-.06	.01	-4.56	.00	-.09	-.04
Social & Emotional Competence (SEC)	.06	.02	2.23	.02	.07	.11
SB X SEC	-.07	.03	-2.41	.01	-.12	-.01

Analysis in the above table No. 25 shows that rescue workers social behavior has significantly ( $t$  (381) = -4.97,  $p < .00$ ) negative affect on counterproductive work behavior; and social and emotional competency also significantly ( $t$  (381) = 2.23,  $p < .02$ ) affects counterproductive work behavior. The interaction between social behavior and social and emotional competency was also significant ( $t$  (381) = -2.41,  $p < .01$ ) indicating moderating effect (B > 0, lies between -.12 & -.01 CI) of social and emotional competency on social behavior and counterproductive behavior.

**Table 26***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.17	.029	.080	3.81	3.00	381.00	.01

The above analysis shows overall fitness of the model ( $F= 7.02, p < .01$ ) such that social and emotional competency (MV) moderates' empathetic behavior (IV) and counterproductive work behavior (DV) in rescue workers. The correlation ( $R = .17$ ) among empathetic behavior, social and emotional competency and counterproductive work behavior. Empathetic behavior and social and emotional competency accounts for 2.9 % of variance in counterproductive work behavior.

**Table 27***Coefficients and Moderation (IV=EB, MV=SEC, DV=CWBs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	1.31	.01	89.49	.00	1.28	1.34
Empathetic Behavior	-.04	.01	-2.46	.01	-.07	-.008
Social & Emotional Competence (SEC)	.07	.03	2.48	.01	.01	.12
EB X SEC	-.03	.02	-1.10	.26	-.08	.02

Analysis in the above table No, 27 shows that rescue workers empathetic behavior has significantly ( $t (381) = -2.46, p < .01$ ) negative affect on counterproductive work behavior; and social and emotional competency also significantly ( $t (381) = 2.48, p < .01$ ) affects counterproductive work behavior. The interaction between empathetic behavior and social and emotional competency was not significant ( $t (381) = -1.10, p < .26$ ) indicating no moderating effect (B < 0, lies between -.08 & .02 CI) of social and emotional competency on empathetic behavior and counterproductive behavior.

**Table 28***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.26	.07	.076	9.61	3.00	381.00	.00

The above analysis shows overall fitness of the model ( $F= 9.61, p < .00$ ) such that social and emotional competency (MV) moderates helping behavior (IV) and counterproductive work behavior (DV) in rescue workers. The correlation ( $R = .26$ ) among helping behavior, social and emotional competency and counterproductive work behavior. Helping behavior and social and emotional competency accounts for 7 % of variance in counterproductive work behavior.

**Table 29***Coefficients and Moderation (IV= HB, MV= SEC, DV= CWBs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	1.31	.01	93.12	.00	1.28	1.34
Helping Behavior	-.05	.01	-3.89	.01	-.08	-.02
Social & Emotional Competence (SEC)	.06	.03	2.53	.01	.01	.12
HB X SEC	-.08	.03	-2.69	.07	-.14	-.02

Analysis in the above table No. 29 shows that rescue workers Helping behavior have significantly ( $t (381) = -4.97, p < .01$ ) negative affect on counterproductive work behavior; and social and emotional competency also significantly ( $t (381) = 2.53, p < .01$ ) affects counterproductive work behavior. The interaction between helping behavior and social and emotional competency was also significant ( $t (381) = -2.69, p < .07$ ) indicating moderating effect (B > 0, lies between -.14 & -.02 CI) of social and emotional competency on helping behavior and counterproductive behavior.

**Table 30***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.12	.015	.081	1.96	3.00	381.00	.01

The above analysis shows overall fitness of the model ( $F = 7.02, p < .01$ ) such that social and emotional competency (MV) moderates caring & sharing behavior (IV) and counterproductive work behavior (DV) in rescue workers. The correlation ( $R = .12$ ) among caring & sharing behavior, social and emotional competency and counterproductive work behavior. Caring & sharing behavior and social and emotional competency accounts for 1.5 % of variance in counterproductive work behavior.

**Table 31***Coefficients and Moderation (IV= CSB, MV= SEC, DV= CWBs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	1.31	.01	90.30	.00	1.28	1.34
Caring & Sharing Behavior	.01	.01	.91	.35	-.01	.03
Social & Emotional Competence (SEC)	.05	.02	1.97	.04	.03	.11
CB X SEC	-.09	.02	-.34	.73	-.06	.04

Analysis in the above table No, 31 shows that rescue workers caring & sharing behavior have insignificant ( $t (381) = .90, p < .35$ ) effect on counterproductive work behavior; while social and emotional competency significantly ( $t (381) = 1.97, p < .03$ ) affects counterproductive work behavior. The interaction between caring & sharing behavior and social and emotional competency was not significant ( $t (381) = -.34, p < .73$ ) indicating no moderating effect (B < 0, lies between -.06 & .04 CI) of social and emotional competency on caring & sharing behavior and counterproductive behavior.

**Table 32***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.08	.007	.388	.94	3.00	381.00	.04

The above analysis shows overall fitness of the model ( $F = .94$ ,  $p < .04$ ) such that social and emotional competency (MV) moderates' emotional behavior (IV) and turnover intentions (DV) in rescue workers. The correlation ( $R = .08$ ) among emotional behavior, social and emotional competency and turnover intentions. Emotional behavior and social and emotional competency accounts for .7 % of variance in turnover intentions.

**Table 33***Coefficients and Moderation (IV=EB, MV= SEC, DV= TOIs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.22	.03	101.4	.00	3.16	3.29
Emotional Behavior	-.01	.03	-.44	.65	-.08	.05
Social & Emotional Competence (SEC)	-.09	.06	-1.47	.14	-.21	.03
EB X SEC	-.03	.06	-.46	.64	-.16	.10

Analysis in the above table No, 33 shows that rescue workers emotional behavior has insignificant ( $t (381) = -.44, p < .65$ ) negative affect on turnover intentions; and social and emotional competency also insignificantly ( $t (381) = -1.47, p < .14$ ) affects turnover intentions. The interaction between emotional behavior and social and emotional competency was also insignificant ( $t (381) = -.46, p < .64$ ) indicating no moderating effect (B < 0, lies between -.16 & .10 CI) of social and emotional competency on emotional behavior and turnover intentions.

**Table 34***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.10	.010	.387	1.37	3.00	381.00	.02

The above analysis shows overall fitness of the model ( $F= 1.37, p < .02$ ) such that social and emotional competency (MV) moderates' social behavior (IV) and turnover intentions (DV) in rescue workers. The correlation ( $R = .10$ ) among social behavior, social and emotional competency and turnover intentions. Rescue workers social behavior and social and emotional competency accounts for 1 % of variance in turnover intentions.

**Table 35***Coefficients and Moderation (IV=SB, MV= SEC, DV= TOIs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.22	.03	101.7	.00	3.16	3.28
Social Behavior	-.04	.03	-1.15	.25	-.10	.03
Social & Emotional Competence (SEC)	-.09	.06	-1.58	.11	-.22	.02
SB X SEC	-.04	.06	-.54	.58	-.16	.09

Analysis in the above table No. 35 shows that rescue workers social behavior has insignificant ( $t(381) = -1.15, p < .25$ ) negative affect on turnover intentions; and social and emotional competency also insignificantly ( $t(381) = -1.58, p < .11$ ) affects turnover intentions. The interaction between emotional behavior and social and emotional competency was also insignificant ( $t(381) = -.54, p < .58$ ) indicating no moderating effect (B < 0, lies between -.16 & .09 CI) of social and emotional competency on social behavior and turnover intentions.

**Table 36***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.17	.029	.380	3.81	3.00	381.00	.01

The above analysis shows overall fitness of the model ( $F = 3.81, p < .01$ ) such that social and emotional competency (MV) moderates' empathetic behavior (IV) and turnover intentions (DV) in rescue workers. The correlation ( $R = .17$ ) among empathetic behavior, social and emotional competency and turnover intentions. Empathetic behavior and social and emotional competency accounts for 2.9 % of variance in turnover intentions.

**Table 37***Coefficients and Moderation (IV = EB, MV = SEC, DV = TOIs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.23	.03	101.05	.00	3.17	3.30
Empathetic Behavior	-.09	.03	-2.64	.08	-1.16	-.02
Social & Emotional Competence (SEC)	-.08	.06	-1.34	.17	-.21	.04
EB X SEC	-.11	.06	-1.97	.04	-.23	-.003

Analysis in the above table No, 37 shows that rescue workers empathetic behavior has significant ( $t (381) = -2.64, p < .08$ ) negative affect on turnover intentions; while social and emotional competency insignificantly ( $t (381) = -1.34, p < .17$ ) affects turnover intentions. The interaction between emotional behavior and social and emotional competency was reported significant ( $t (381) = -1.97, p < .04$ ) indicating moderating effect (B > 0, lies between -.23 & -.003 CI) of social and emotional competency on empathetic behavior and turnover intentions.

**Table 38***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.08	.006	.388	.83	3.00	381.00	.05

The above analysis shows overall fitness of the model ( $F= 3.83, p < .05$ ) such that social and emotional competency (MV) moderates helping behavior (IV) and turnover intentions (DV) in rescue workers. The correlation ( $R = .08$ ) among rescue workers helping behavior, social and emotional competency and turnover intentions. Helping behavior and social and emotional competency accounts for .6 % of variance in turnover intentions.

**Table 39***Coefficients and Moderation (IV = HB, MV = SEC, DV = TOIs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.22	.03	101.4	.00	3.16	3.28
Helping Behavior	-.05	.03	-.15	.87	-.07	.06
Social & Emotional Competence (SEC)	-.09	.06	-1.56	.11	-.21	.02
HB X SEC	.07	.07	.11	.91	-.13	.14

Analysis in the above table No, 39 shows that rescue workers helping behavior have insignificant ( $t (381) = -.15, p < .87$ ) negative affect on turnover intentions; and social and emotional competency also insignificantly ( $t (381) = -1.56, p < .11$ ) affects turnover intentions. The interaction between emotional behavior and social and emotional competency was also insignificant ( $t (381) = -.11, p < .91$ ) indicating no moderating effect (B < 0, lies between -.13 & .14 CI) of social and emotional competency on helping behavior and turnover intentions.

**Table 40***Model Summary*

<i>R</i>	<i>R</i> <sup>2</sup>	<i>MSE</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
.21	.044	.374	5.86	3.00	381.00	.06

The above analysis shows overall fitness of the model ( $F= 5.86, p < .06$ ) such that social and emotional competency (MV) moderates caring & sharing behavior (IV) and turnover intentions (DV) in rescue workers. The correlation ( $R = .21$ ) among caring & sharing behavior, social and emotional competency and turnover intentions. Caring & sharing behavior and social and emotional competency accounts for 4.4 % of variance in turnover intentions.

**Table 41***Coefficients and Moderation (IV = CB, MV = SEC, DV = TOIs)*

Model	B	SE	t	p	LLCI	ULCI
Constant	3.22	.03	103.3	.00	3.16	3.28
Caring & Sharing Behavior	-1.10	.02	-3.72	.02	-.16	-.05
Social & Emotional Competence (SEC)	-.10	.06	-1.59	.11	-.22	.02
CSB X SEC	-.05	.06	-.90	.36	-.17	.06

Analysis in the above table No. 41 shows that rescue workers caring & sharing behavior have significant ( $t (381) = -3.72, p < .25$ ) negative affect on turnover intentions; while social and emotional competency has insignificantly ( $t (381) = -1.59, p < .11$ ) affects turnover intentions. The interaction between caring & sharing behavior and social and emotional competency was also insignificant ( $t (381) = -.90, p < .36$ ) indicating no moderating effect (B < 0, lies between -.17 & .06 CI) of social and emotional competency on caring & sharing behavior and turnover intentions.

**Chapter 5****5.1. Discussion**

This chapter contains detailed discussion on results and findings of this current research. This study was conducted on emergency rescue service, rescue 1122 Khyber Pakhtunkhwa Pakistan with the aim to investigate the association between prosocial behavior of rescue workers and different job outcomes with moderating effects of social and emotional competencies. Operational rescue workers including emergency medical technicians (EMTs) and fire rescuers (FR) were selected as sample. The study contains five variables including one independent variable (Prosocial behavior of rescue workers), three dependent including employee work engagement, counterproductive work behavior and turnover intentions. Social and emotional competencies was used as moderating variable.

For the evaluation of results of the current research study with earlier research studies, a thorough search was carried out. Different research databases were checked, studied and conducted including academia, ResearchGate, Sci hub, Publons, Psych abstract etc. No study was found with the same variables even in different sector/ organizations. Most of the research studies related to prosocial behavior (IV) were found on children and adolescents while most of the studies were found with the term organizational citizenship behavior (Adamu et al., 2021; Carlo et al., 2007; Gupta & Thapliyal, 2015). No research study was found with social and emotional competence as moderating variable while mostly were found with the term emotional intelligence.

It was hypothesized that all five subscales of rescue workers prosocial behavior scale including emotional behavior, social, empathetic behavior, helping behavior and caring & sharing behavior are positively associated with rescue workers work engagement. To support these hypotheses, various analysis was done to obtained empirical evidences. All sub-domains of rescue workers prosocial behavior were found positively correlated with rescue workers work engagement. Rescue workers who scored high score on emotional behavior, social behavior, empathetic behavior, helping behavior and caring & sharing behavior also scored high on employee work engagement scale (UWES). The connection between the emotional behavior of rescue workers and their level of work engagement is intricate and diverse. Emotional behavior encompasses the way emotions are expressed and managed, encompassing both positive and negative emotions (Kemeny et al., 2012). Work engagement, on the other hand, refers to the

extent of dedication, enthusiasm, and absorption that individuals exhibit towards their work. Emotional labor is a common aspect of rescue work, where rescue workers are required to regulate and display their emotions while performing their duties (Gärtner et al., 2019). The way they effectively manage and express their emotions can significantly influence their level of work engagement. Engaging in high levels of emotional labor, such as continuously suppressing negative emotions, can result in emotional exhaustion and reduced work engagement (Mroz & Kaleta, 2016). Conversely, when rescue workers are able to genuinely express positive emotions, it can enhance their level of work engagement. Emotionally and socially stable (Calderón-Tena et al., 2011) and strong individuals are found to be more successful in the workplace while empathetic behavior is an important and necessary for the development of interpersonal association with colleagues (Munawar et al., 2023).

Positive social behavior, such as engaging in supportive interactions, demonstrating cooperation, and fostering teamwork, plays a crucial role in creating a favorable work environment for rescue workers (Gulati et al., 2012). This conducive atmosphere, in turn, has the potential to enhance their work engagement. When rescue workers perceive that their colleagues, supervisors, and organizational culture value and support them, they are more likely to experience heightened levels of engagement in their work (Schaufeli & Bakker, 2004).

Nurturing supportive social relationships can provide emotional assistance, create avenues for personal and professional growth, and foster a sense of belonging, all of which are vital factors in promoting work engagement (Bakker et al., 2011). For instance, when rescue workers receive constructive feedback, acknowledgment for their contributions, and opportunities for skill enhancement, it positively influences their engagement levels. Furthermore, it is important to recognize that social behavior also has a significant impact on the overall social climate within a rescue team or organization (Bakker & Demerouti, 2007). Positive social behavior, such as demonstrating empathy, fostering open communication, and promoting collaboration, can contribute to the cultivation of robust social connections, trust, and cooperation among team members. These elements, in turn, create a supportive and harmonious work environment that is conducive to fostering work engagement among rescue workers. By promoting positive social behavior, organizations can encourage a sense of unity and teamwork, thereby enhancing the level of engagement experienced by rescue workers (Schaufeli & Bakker, 2004).

The association between rescue workers' empathetic behavior and work engagement is an important aspect to consider when examining their job performance and well-being (Raina, 2022). Empathetic behavior among rescue workers has been found to have a strong association

with higher levels of job satisfaction and motivation (Duarte et al., 2016). When rescue workers possess the ability to understand and emotionally connect with the individuals they are assisting, it has a profound impact on their sense of fulfillment and purpose in their work (Dal Santo et al., 2014). This, in turn, leads to increased levels of engagement. One of the key benefits of demonstrating empathy is the provision of emotional support to those in distress. When rescue workers extend empathy towards others, they not only help the individuals in need but also enhance their own well-being (Kim et al., 2022). By witnessing the positive impact of their actions on others' lives, rescue workers experience a heightened sense of meaning and engagement in their work (Cao & Chen, 2019).

Rescue workers find deep satisfaction and a sense of purpose when they engage in helping others. Their intrinsic motivation and dedication to their profession drive them to make a positive impact on people's lives during emergencies or crises (Cerasoli et al., 2014). The act of assisting others is inherently rewarding and fulfilling for these workers, as it aligns with their core values and aspirations (Velotti & Murphy, 2020). Witnessing the difference, they make in someone's life boosts their motivation and brings them immense satisfaction. Active participation in helping behavior significantly enhances their overall job satisfaction (Malokani et al., 2022). Being able to contribute to the well-being and safety of others provides a profound sense of personal fulfillment and gratification in their work (Godé et al., 2019). By utilizing their skills, knowledge, and expertise to aid those in need, rescue workers experience a heightened sense of competence and mastery in their roles, further deepening their engagement and commitment to their profession (Kanste, 2011).

Numerous research studies have provided compelling evidence for a positive link between the caring and sharing conduct of rescue workers and their level of engagement in their work (Saks, 2022). These investigations have specifically focused on professions like firefighters, paramedics, and disaster response teams. Across multiple studies, consistent findings have revealed favorable associations between caring and sharing behavior and work engagement. By practicing acts of care and sharing, rescue workers establish an environment that promotes support and appreciation from their colleagues, victims and victims' families ultimately leading to feelings of value and respect (Chunchu et al., 2012). This supportive atmosphere, characterized by teamwork and social support, nurtures a sense of belonging and fosters positive relationships, thereby enhancing work engagement (Steinheider et al., 2020). Additionally, caring and sharing behavior are often intertwined with positive emotions like compassion, empathy, and gratitude (Schmutz et al., 2015). Actively engaging in these

behaviors can contribute to the emotional well-being of rescue workers, effectively mitigating stress and burnout, and ultimately augmenting their overall work engagement.

Rescue workers with high prosocial behavior are assumed to be more engaged and committed to their organization (Bolino & Grant, 2016). These established results are found in line with results of study conducted by (Abid et al., 2018). They also reported a positive association between prosocial motivation and employee work engagement. Engaged and committed employees are found with high performance. High prosociality leads to high performance in a workplace (Baruch et al., 2004). Helping attitude of the employees leads to a supportive environment in the workplace that in turn encourages support, caring, sharing and helping (Abid et al., 2018; Eldor, 2016). Rescue workers prosocial behaviors are those actions taken by rescue workers for the welfare of those victims, they responded in the emergency. It is not only limited to the victims of emergency but these are also the acts they are doing in the office with colleagues by sharing personal protective equipment's etc., denoted as caring and sharing in the newly validated scale. Prosocial behavior at the workplace includes helping the new inductees, working for work-life balance and working to produce more energy for the organization through different actions and it may utilized, when the individual is found emotionally and socially competent (Freidlin & Littman-Ovadia, 2020). These individuals are found interpersonally more involved in prosocial activities (Chow et al., 2013).

System of reward and recognition, employees empowerment and bond of association between employees and leaders are the key determinants for an organization to produce engaged employees (Osborne & Hammoud, 2017). This balance is possible when there is positive and supportive communication between employees and the leaders. Positive and effective communication between employees and leaders an play a key role in production of engaged employees for the organization (Welch, 2012). Level of the organization is developing due to these activities (Unsworth et al., 2021; Zettler, 2022). Emergency rescue service 1122 is the organization working for safe community free of cost, that's why rescue workers are fully involved in all types of events including man-made or naturals. Rescue 1122 has become largest humanitarian organization of Pakistan (Hussain & Naz, 2015). Engagement generates energy in employees alternate to vigor, an important factor of engagement. This energy leads to organizational citizenship behavior (prosocial behavior), it is a supportive and positive emotional state necessary for the enhancement of OCB and decrease in level of Counterproductive behavior (Ariani, 2013; Sackett et al., 2006).

It was hypothesized that there is negative association among all subscales of rescue workers prosocial behavior and counterproductive work behavior among rescue workers.

Different analysis was carried out to get empirical evidences regarding the mentioned relationship. All subscales of rescue workers prosocial behavior were found negatively correlated with counterproductive work behavior among rescue workers. Rescue workers who scored high on any sub-domain of prosocial behavior scale for rescue workers, scored low on counterproductive work behavior. Rescue workers with high level of emotional, social, empathetic, helping and caring & sharing behaviors were found less or uninvolved in those actions to harm the organization. Results of the study proved this hypothesis, which was accepted.

Rescue workers often experience high levels of stress due to the demanding and emotionally challenging nature of their work (Ashkanasy & Daus, 2002). This chronic job stress and burnout can elevate the chances of engaging in counterproductive work behavior, such as conflicts with colleagues, absenteeism, or withdrawal from work responsibilities. The experience of emotional exhaustion, which is a component of burnout, can diminish self-control and increase negative emotional reactions, thus potentially contributing to counterproductive work behavior (Ito & Brotheridge, 2003). Furthermore, rescue workers frequently encounter distressing situations where they are exposed to the emotional states of victims or witnesses. Research suggests that emotional contagion, the phenomenon where one person's emotions influence and spread to others, can occur in high-stress environments (Nikolaou & Tsaousis, 2002). If rescue workers are unable to effectively manage and regulate their own emotions, there is a possibility of unintentionally transmitting negative emotions to their colleagues, thereby potentially increasing the likelihood of counterproductive work behavior (Bolton et al., 2012).

The association between rescue workers' social behavior and counterproductive work engagement can vary depending on various factors and individual differences. Rescue workers who demonstrate positive social behaviors, such as being supportive, cooperative, and respectful towards their colleagues, are less likely to experience counterproductive work engagement (Prati et al., 2011). When individuals feel a sense of social support and camaraderie in their workplace, they tend to have higher job satisfaction, lower levels of burnout, and a reduced inclination to engage in behaviors that hinder productivity (Ariani, 2013). On the other hand, rescue workers who display negative social behaviors, such as workplace incivility, interpersonal conflict, or aggression, are more prone to experiencing counterproductive work behavior (Batson & Powell, 2003). Negative social interactions can create a toxic work environment, leading to increased stress, decreased job satisfaction, and a higher likelihood of engaging in counterproductive work behaviors as a way to cope or in response to perceived

unfairness (Fatima et al., 2012). It is crucial to recognize that the organizational context and culture significantly influence the relationship between social behavior and counterproductive work engagement (Hafidz et al., 2012). When an organization promotes teamwork, open communication, and supportive relationships among rescue workers, it fosters positive social behavior and reduces the likelihood of counterproductive work engagement (Tsai, 2021).

Consistently engaging in rescue empathetic behavior can lead to emotional exhaustion, particularly when employees are frequently exposed to others' distress and their own needs are neglected (Wang et al., 2021). This emotional exhaustion can contribute to a higher likelihood of engaging in counterproductive work behaviors as a way of coping or self-preservation (Yoo & Cho, 2013). The relationship between rescue empathetic behavior and counterproductive work behavior is also influenced by individual differences, such as personality traits. For instance, individuals with high levels of empathy and a strong sense of justice are often more motivated to assist others and less inclined to exhibit counterproductive work behavior (Miles et al., 2002).

Rescue workers often face high-stress situations, dealing with traumatic incidents and emotional demands. Over time, this can lead to burnout and compassion fatigue, where workers become emotionally drained and struggle to sustain their helping behavior (Cocker & Joss, 2016). Consequently, they may resort to counterproductive work behavior as a way to cope or due to their depleted emotional resources (Ariani, 2013). The organizational setting also plays a vital role in shaping employee behavior. When rescue workers perceive a supportive work environment that values and acknowledges their helping behavior, they are more inclined to engage in helpful actions and less likely to exhibit counterproductive work behavior (Bolton et al., 2012). Conversely, if the organization lacks support systems or faces organizational challenges, it may exacerbate the risk of burnout and increase the likelihood of counterproductive work behavior among rescue workers (Fida et al., 2015).

The social exchange theory offers a theoretical perspective that can shed light on the connection between caring and sharing behavior and counterproductive work behavior (Cook et al., 2013). According to this theory, individuals engage in social interactions with an expectation of reciprocity and positive outcomes. When rescue workers demonstrate caring and sharing behavior, it establishes a favorable social exchange environment where colleagues feel valued and supported. Consequently, this positive social exchange resulting from caring and sharing behavior may have the potential to reduce counterproductive work behavior (Yu et al., 2019). When individuals perceive that their need for support and assistance is met, they are more inclined to reciprocate positively and engage in behaviors that benefit the organization. As

a result, the likelihood of engaging in counterproductive work behavior decreases (Cropanzano & Mitchell, 2005). Furthermore, caring and sharing behavior among rescue workers can cultivate a sense of camaraderie, trust, and teamwork. When individuals feel a sense of belonging and identify with their colleagues, they are more likely to adhere to the organization's norms and values (Bennett et al., 2012). This sense of cohesion acts as a protective factor against counterproductive work behavior by fostering a collective focus on achieving organizational goals and maintaining a positive work environment (Ali & Johl, 2020).

Some of the research studies have used the term organizational citizenship behavior instead of prosocial behavior. Both the variables studied are staying on the opposite polls. For an instance, an individual prosocial or involved in OCB will be less harmful to the organization. Similarly, it is quite clear from the definitions of both one is prosocial while the other is antisocial (Batson & Powell, 2003). Before empirical analysis it was presumed that there will be negative association between prosocial behavior of rescue workers and counterproductive work behavior. Results of the research were in line with research study conducted by (Dalal, 2005). The research reported modestly negative association between organizational citizenship behavior and counterproductive work behavior, results of this study were verified on 16721 research participants.

According to (Judge et al., 2006), it was reported that association between employee deviant behavior and perceptions of workplace environment and highly engaged employees are said to be more positive and less counterproductive (Ariani, 2013; Den Hartog & Belschak, 2012). OCB and CWBs are known to be different constructs and an individual may be engaged in either OCB or CWBs. Results of our current research are found parallel with studies of (Dalal, 2005) and (Kelloway et al., 2010), they reported negative association between the two constructs. Highly prosocial or those rescue workers involved in organizational citizen behavior will score less on counterproductive behavior scale and they will be less harmful to the organization. Such type of rescue workers can benefit and develop and emergency service.

Hypothesis was formulated and expected about the negative relationship between rescue workers prosocial behavior (all subscales) and turnover intentions among rescue workers. Different analysis was performed to get empirical evidences regarding the mentioned relationship. Prosocial behavior was found negatively correlated with turnover intentions among rescue workers. Employees scored high on prosocial scale scored low on turnover intentions scale. Results were found in line with the studies conducted by (Chen et al., 2004; Yin et al.,

2018). According to Yin and colleagues' altruism is the important factor of OCB which is directly related to the involvement of employees to help each other's in trouble during working hours. Employees with altruistic behaviors are found likely to stay in the organization.

Rescue workers who find greater job satisfaction generally demonstrate more positive emotional behavior, including empathy, compassion, and resilience (Cao & Chen, 2021). Given the demanding nature of rescue work, which often involves encountering traumatic situations and high stress levels, emotional exhaustion can occur. When rescue workers experience emotional exhaustion, they may display negative emotional behaviors, such as irritability, withdrawal, or burnout (Halpern et al., 2011). This exhaustion can contribute to an increased desire to leave the job, as workers seek relief from the emotional strain (Miller et al., 2017). Organizations that prioritize the well-being of rescue workers, provide adequate resources, offer opportunities for debriefing, and foster a positive work environment are more likely to encourage positive emotional behavior and reduce turnover intentions (Ducharme et al., 2007).

The behavior of rescue workers in their social interactions with colleagues, supervisors, and subordinates can have a significant influence on their overall job satisfaction (Ducharme & Martin, 2000). Positive social interactions, effective teamwork, and a supportive work environment are generally associated with higher levels of job satisfaction among rescue workers. When rescue workers experience job satisfaction, they are less likely to contemplate leaving the organization, leading to reduced turnover intentions (Renn et al., 2013). Additionally, the level of support provided by the organization to rescue workers plays a crucial role in impacting their turnover intentions (Perryer et al., 2010). Organizational support encompasses various factors such as allocation of resources, provision of training opportunities, recognition of achievements, and promotion of work-life balance (Visser et al., 2016). When rescue workers perceive that their organization provides them with substantial support, it tends to have a positive impact on their job satisfaction and commitment to the organization, consequently reducing their intention to leave the organization (Yang et al., 2011).

Creating a (Jang et al., 2017)for rescue workers can contribute to higher job satisfaction levels and reduce turnover intentions . Recognizing and addressing the demanding nature of their work by providing adequate support systems can help mitigate burnout and emotional exhaustion, enabling rescue workers to maintain their helping behavior and commitment to their roles (Nikolaou & Tsaousis, 2002). Promoting a culture of helping and support within the workplace can have a significant impact on the job satisfaction levels of rescue workers (Yu-

Ping et al., 2020). When these workers are engaged in supportive actions, such as offering assistance to their colleagues or providing aid to victims, it fosters a sense of fulfillment and purpose in their work. Consequently, this sense of fulfillment can reduce their intentions to leave the job, as they are more likely to feel content and committed to their role (Ong et al., 2019). The continuous exposure to such stressful situations, without adequate support systems in place, can result in burnout and emotional exhaustion among rescue workers. These factors not only have a negative impact on their ability to provide effective help but also increase their intentions to leave the job as they seek relief from the overwhelming emotional toll (Xiong & Wen, 2020).

Empathy plays a crucial role in the behavior of rescue workers, as they often come across individuals who have gone through traumatic events or find themselves in distressing situations (Regehr et al., 2002). When rescue workers exhibit empathetic behavior, it can significantly improve their effectiveness in providing support and contribute to positive outcomes for those they assist. The relationship between empathetic behavior and turnover intentions is multifaceted (Wibowo & Paramita, 2022). On one hand, demonstrating empathy and compassion towards those in need can be personally rewarding and satisfying for rescue workers, as they witness the positive impact they have on people's lives. This sense of purpose and fulfillment can lead to higher job satisfaction and reduce the likelihood of turnover (Jang et al., 2017). Moreover, when rescue workers feel valued and recognized for their empathetic efforts, it strengthens their dedication to their roles and organizations (Xiong & Wen, 2020).

When individuals perceive that they have a network of coworkers who genuinely care about their well-being and are ready to assist them during challenging times, they are more likely to experience reduced levels of stress and high level of job dissatisfaction (Khattak & Qureshi, 2020). This social support acts as a protective shield against employee turnover. When employees are immersed in a positive work environment where their colleagues and supervisors consistently demonstrate caring and sharing behavior, they are more likely to feel valued, supported and engaged (Judeh, 2021). Consequently, their intentions to leave the organization are diminished since they are less inclined to seek alternatives in an organization that promotes a culture of compassion and support (Croppanzano & Mitchell, 2005).

Prosocial behavior of the employees leads to high level of engagement and commitment while positive and supportive work environment and high organizational commitment leads to low turnover intention on (Masud & Daud, 2019). It is a very common issue of the organization

while dealing workers of different agendas, behaviors and targets (Puangyoykeaw & Nishide, 2015). Intention to leave a job is problematic for both organization and the employee. Organization is at a risk of losing skilful, committed and talented employees while the employees are at a risk of suffering from financial or economic crises due to lose job (Sarahi et al., 2017). Employees with high level of organizational citizenship behavior are found willing to perform extra-roll activities for the development of the organization without any expectation of reward are also found less involved in the activities of leaving the organization. Those employees working to benefit their friends and colleagues in a workplace without expecting some extra benefits in return aware of the organizational norms and culture and they are found highly satisfied in the job and they have no intention to leave the job. This above explanation has been taken from the P-O Fit theory (Cable & DeRue, 2002). PO fit is the compatibility of both people and the entire organizations (Sekiguchi, 2007).

It was hypothesized that social and emotional competency can change the association among all subscales of prosocial behavior and work engagement among rescue workers. Different analysis was performed to get empirical evidences regarding the mentioned relationship. Moderating effect of social and emotional competence was found on the relationship of all subscales of rescue workers prosocial behavior and work engagement of rescue workers. Results of the current study shows that the association of prosocial behavior and work engagement of rescue workers is significantly moderated by social and emotional competencies. Which indicates that social and emotional competence (moderating variable) has no significant effect upon the association of independent variable (Prosocial behavior) and dependent (work engagement).

Previously no empirical research with the same variable "Social and emotional competence will work as moderator between prosocial behavior and employee work engagement however studies on emotional intelligence as moderator were reported for reference. Previous literature reported that emotional intelligence works like tool of relationship building in the organization which in turn regulates engagement and commitment among the employees. High level of employee engagement and commitment leads to increased organizational productivity. Emotionally intelligent employees are found more prosocial or involved in organizational citizenship behavior (Dixit & Singh, 2019). Rescue workers who scored high on prosocial behavior scale also scored high on work engagement scale. From results of the current study, it is clear that the rescue workers who are highly involved in

prosocial activities love to stay and work for the development of their organization. While on the other hand those who are not interested to take part in extra role activities are also prone to be engaged in unacceptable working behavior and turnover intentions. Rescue workers involved in prosocial activities are needed for the organization because they have the ability to handle all sorts of horrific emergencies by keep themselves relax and calm. They have the ability to change the unwanted and critical situation more efficiently. They are capable of managing their own and victim's emotions easily.

It was hypothesized that social and emotional competencies can change the association among all subscales of prosocial behavior and counterproductive work behavior of the rescue workers. Different analysis was carried out to get empirical evidences regarding the mentioned relationship. Significant moderating effect of social and emotional competency was found on the association of subscales of prosocial behavior and counterproductive work behavior of rescue workers. No earlier research study was found with all the mentioned variables however a research on the moderating influence of emotional intelligence on organizational citizenship behavior and counterproductive work behavior by (Dixit & Singh, 2019) was consulted. Results of the current research indicates the significant moderating effect of social and emotional competence on the association of rescue workers social behavior and rescue workers helping behavior while nonsignificant moderating effects of emotional and social competence on the association of rescue workers emotional behavior, rescue workers empathetic behavior and rescue workers caring & sharing behavior with counterproductive work behavior.

Results of our current study are in contrast with the study conducted by (Dixit & Singh, 2019). According to them, emotional intelligence has a significant influence on the association of organizational citizenship behavior and counterproductive work behavior. Work of rescue workers is totally under the influence of emotions. It effects both organizational citizenship behavior and all job outcomes. Emotionally intelligent employees will be more involved in organizational citizenship behavior practices (Jung & Yoon, 2012; Lee & Allen, 2002). Several research studies reported positive impact of emotional intelligence organizational citizenship behavior and negative association with counterproductive behavior of the employees in the workplace. Emotional intelligence is the regulator of OCB while stress regulates emotional exhaustion leading to counterproductive work behavior (Bolino et al., 2013; Karakuş, 2012; Zhang et al., 2016).

Another research study by (Dixit & Singh, 2019) reported the importance of emotional intelligence in the workplace. Increase in emotional intelligence produces organizational citizenship behavior among employees which is more profitable for the organization and its also necessary for the development of the organizations. Development and success of the organization is dependent upon the extra roles of the employees they are playing in the organizations. Employees emotionally intelligent and engaged in organizational citizenship behaviors are found more committed and less involved in counterproductive work behaviors (Cohen, 2016; Dixit & Singh, 2019). Employees who have the ability to understand the emotions of self and others are found helping and empathic towards others and they are found less involved while taking revenge and blame others for their own unacceptable actions. According to (Khalid et al., 2009) employees with the good quality of self-management have also the capability to easily control their feelings which keeps them away misbehaving or abusing other employees. Emotionally intelligent employees are found less involved in unacceptable actions while emotionally incompetent employees are found more engaged in unacceptable actions in the workplace.

It was hypothesized that social and emotional competence can change the association among all subscales of prosocial behavior and turnover intentions among rescue workers. Different analysis was performed to get empirical evidences regarding the mentioned relationship. Significant moderating effect of social and emotional competencies was found on the association of subscales of prosocial behavior and turnover intentions of rescue workers. Previously no empirical research with the same variable “Social and emotional competence will work as moderator between prosocial behavior and turnover intentions among rescue workers”. Results of the current study reports that association of rescue workers empathetic behavior and turnover intentions was significantly moderated by social and emotional competence while nonsignificant moderating effect of social and emotional competence on the association of rescue workers emotional behavior, social behavior, helping behavior and caring & sharing behavior and turnover intentions. Those rescue workers who are emotionally and socially stable having helping attitude and always care about colleagues and victims and also sharing their personal protective equipment and knowledge will have fewer turnover intentions.

According to (Ifeyinwa & Onodugo, 2020), employees with high level of OCB practices have the ability to assess and judge the scenarios immediately and create an opportunity to enhance the trust and integrity of their organizations. It is also directly involved in the reduction

of turnover intentions and employee absenteeism and increases employee morale, engagement and commitment also responsible of intra and interpersonal relationship and personal development. The mentioned positive job outcomes can be achieved by utilising imaginative, innovative and practical abilities. OCB is not only limited to organizational outcomes however it is also influence upon individual outcomes like assessment of employees performance, making decisions in crisis, management of reward and punishment system etc (Podsakoff et al., 2000).

Individuals change their jobs to find better and good match where they have chance to enhance their skills and abilities and the job must also fulfil their interest in case of contrast the situations force the employees towards turnover (Ifeyinwa & Onodugo, 2020). Employees turnover is like a menace that has overwhelmed some organizations and poses a serious threat to the economy of labour market. The influence of employee turnover needs special focus from the administration to discuss as special agenda and develop remodifications. Despite of these all practices the problem of employee turnover still exists in a more serious form in certain organizations. Researchers reported that good sportsmanship of administrators is associated to the enhancement of employee morale and in turn lower down employee turnover (Meyer et al., 2004; Podsakoff & MacKenzie, 1997; Rubel & Kee, 2015). Altruistic behavior among employees may be encouraged to reduce the issue of employee turnover because of significant influence of OCB practices upon employee turnover. Employees altruistic behaviors promotes employees good relationship and social interaction which is necessary to obtained the desired outcomes (Ifeyinwa & Onodugo, 2020).

## 5.2. Conclusion

Based on the two-phased research study, several conclusions can be drawn. Firstly, the Prosocial Behavior Scale for Rescue Workers was successfully developed and validated, comprising five subscales encompassing emotional behavior, social behavior, empathetic behavior, helping behavior, and caring & sharing behavior. This indicates the existence of diverse forms of prosocial behaviors among rescue workers. Secondly, the study examined positive job outcomes (specifically work engagement) and negative job outcomes (counterproductive work behavior and turnover intention) among rescue workers. The findings revealed a significant positive association between prosocial behavior and work engagement, suggesting that higher levels of prosocial behaviors correspond to increased work engagement among rescue workers. Furthermore, a negative relationship was observed between prosocial behavior and both counterproductive work behavior and turnover intention, indicating that greater prosocial behavior is linked to lower levels of counterproductive work behavior and turnover intention in this population. However, it is important to note that the study identified a moderating effect of social and emotional competence on the relationship between prosocial behavior (across all subscales) and certain job outcomes. These findings underscore the importance of cultivating prosocial behavior among rescue workers as a means to enhance positive job outcomes and mitigate negative job behaviors.

### **5.3. Contribution of the Current Research**

This research study makes a significant contribution to the scientific community by introducing a novel research model that combines independent, moderating, and dependent variables in a unique way. Previous studies have not examined the relationship between rescue workers' prosocial behavior, work engagement, counterproductive work behavior, and turnover intentions. Additionally, the study investigates the moderating effects of social and emotional competence on these associations, which has not been explored before. Furthermore, the research raises awareness of the distinct job description and job environment of rescue workers, highlighting the need for context-specific understanding. The findings of this study have implications for improving the well-being and effectiveness of rescue workers and provide valuable insights for organizations and policymakers.

#### **5.3.1. Contribution through development and validation of new scale**

This research study made a significant contribution to the scientific community by developing and validating a new scale specifically tailored for Pakistani rescue workers. While existing instruments related to the variables under investigation were mostly focused on children and adolescents, this study recognized the need for a tool that could accurately assess the experiences and challenges faced by rescue workers in the context of horrific and bloody emergencies they encounter on a daily basis. The researchers conducted the development and validation process on a sample from the emergency rescue service Rescue 1122 Khyber Pakhtunkhwa, a group fully engaged in these demanding situations. The findings revealed that the instrument exhibited high reliability, with values exceeding the reference range for both the overall scale and its individual subscales. This research not only fills a gap in the existing literature but also provides a valuable resource for future studies and interventions aimed at understanding and supporting the well-being of rescue workers in similar contexts.

#### **5.3.2. Contribution for the emergency rescue service Rescue 1122**

The current research has significant implications for the role of rescue workers in dealing with victims in a prosocial manner. It recognizes that victims not only require physical treatment but also benefit greatly from compassionate words and emotional support, which rescue workers are capable of providing. By engaging in prosocial actions, such as offering encouragement and moral support, rescue workers can positively contribute to the recovery and enthusiasm of the victims. Furthermore, this research highlights the inclusion of divine and

prophetic instructions that emphasize the importance of helping others selflessly, without expecting anything in return. By promoting awareness of these principles, the research encourages rescue workers to extend aid to those in distress altruistically. Additionally, the study offers valuable and reliable information on various variables, prompting organizations to prioritize the recruitment of individuals who possess social and emotional competencies. These competencies directly contribute to the development and effectiveness of organizations, as emotionally and socially competent rescue workers can work more efficiently within a team, ultimately striving towards achieving collective goals.

#### **5.4. Suggestions and Future Directions**

In future the researches may extend to collect data by using alternate sources of data collection from rescue officers and investigates the results. The researchers are requested to attempt other research designs to explore cause and effect relationship between these variables. In future the researchers are requested to make these findings authentic by conducting researches on the same variables in other countries having emergency rescue services. Working environment of ERS rescue 1122 in Pakistan is may be totally different from other European, non-European or Asian countries (Malik et al., 2015).

In future the researchers may collect data by using probability sampling technique from all provinces of Pakistan to make the results more generalized. The researchers may also add some more independent and moderating variables to investigate including job satisfaction, resilience and organizational commitment or some other variables related to organizational behavior or workplace (Bimrose & Hearne, 2012; Jiang, 2016). It is suggested that the researchers may conduct studies on computer operators to check their findings and association with the operational rescue workers.

## **5.5. Intervention Plane**

Based on the research findings, a concise intervention plan can be developed to benefit rescue workers. The proposed intervention plan may include the following programs.

### **5.5.1. Training and Development Programs**

Implementation of training programs focused on enhancing social and emotional competencies of rescue workers. This can include workshops, seminars, and interactive sessions aimed at improving communication skills, empathy, emotional intelligence, and conflict resolution abilities. Provide training on prosocial behavior and the importance of compassion and emotional support in dealing with victims. This can help rescue workers understand the impact of their actions and encourage them to engage in prosocial behaviors. Establish mentoring or coaching programs where experienced rescue workers can provide guidance and support to newer or less experienced colleagues. This can help enhance social and emotional competence by fostering a sense of belonging, providing opportunities for learning, and promoting personal growth.

### **5.5.2. Support Systems Within the Organization**

Establishment of supportive systems within the organization to promote well-being and resilience among rescue workers. This can include regular counseling sessions, peer support groups, and access to mental health professionals. Provide resources and tools to help rescue workers cope with the challenges they face, such as stress management techniques, self-care strategies, and resources for dealing with traumatic experiences.

### **5.5.3. Context-Specific Guidelines**

Develop context-specific guidelines and protocols for rescue workers, taking into account the distinct job description and job environment they face. These guidelines should address the unique challenges and situations encountered by rescue workers and provide clear instructions on how to handle them effectively and compassionately. Teach rescue workers effective strategies for managing their emotions in high-stress situations. This may include techniques such as deep breathing exercises, mindfulness, visualization, and cognitive reframing. Encourage regular self-care practices to help them recharge and maintain emotional well-being.

### **5.5.4. Recognition and Appreciation**

Establish a culture of recognition and appreciation within the organization to acknowledge the efforts and achievements of rescue workers. This can include rewards, public recognition, and opportunities for career advancement based on performance and dedication.

**5.5.5. Continued Research and Evaluation**

Encourage further research and evaluation in the field of rescue workers' well-being, prosocial behavior, work engagement, counterproductive work behavior, and turnover intentions. This will help identify new strategies and interventions to further support rescue workers and improve their overall effectiveness and satisfaction.

**5.5.6. Promote Work-Life Balance**

Emphasize the importance of work-life balance and self-care. Provide flexible work arrangements, encourage breaks, and promote healthy coping strategies. Support their personal well-being to prevent burnout and promote overall job satisfaction.

By implementing this intervention plan, organizations can promote the well-being and effectiveness of rescue workers, enhance their social and emotional competencies, and create a supportive and compassionate work environment.

## REFERENCES

Aasa, U., Brulin, C., Ångquist, K. A., & Barnekow-Bergkvist, M. (2005). Work-related psychosocial factors, worry about work conditions and health complaints among female and male ambulance personnel. *Scandinavian journal of caring sciences*, 19(3), 251-258.

Abdullah, A., Bilau, A. A., Enegbuma, W., Ali, W., & Bustani, S. (2012). Small and medium sized construction firms job satisfaction and performance evaluation in Nigeria.

Abdullah, A., Bilau, A. A., Enegbuma, W. I., Ajagbe, A. M., & Ali, K. N. (2011). Evaluation of job satisfaction and performance of employees in small and medium sized construction firms in Nigeria.

Abid, G., Sajjad, I., Elahi, N. S., Farooqi, S., & Nisar, A. (2018). The influence of prosocial motivation and civility on work engagement: The mediating role of thriving at work. *Cogent Business & Management*, 5(1), 1493712.

Abraham, R. (1999). Emotional intelligence in organizations: A conceptualization. *Genetic, social, and general psychology monographs*, 125(2), 209.

Adamu, A., Atena, B., & Solomon, M. (2021). Determinants of Prosocial Behavior Among Secondary and Preparatory School Students *Euromentor Journal*, 12(1), 87-107.

Afolabi, O. A. (2013). Roles of personality types, emotional intelligence and gender differences on prosocial behavior. *Psychological thought*, 6(1).

Afolabi, O. A. (2014). Psychosocial predictors of prosocial behaviour among a sample of Nigerian undergraduates. *European Scientific Journal*, 10(2).

Aftab, H., & Javeed, A. (2012). The impact of job stress on the counter-productive work behavior (CWB) A Case Study from the financial sector of Pakistan. *Interdisciplinary journal of contemporary research in business*, 4(7), 590-604.

Ahmad, S., Arshad, T., & Kausar, R. (2015). Psychological correlates of distress in rescue 1122 workers in Pakistan. *International Journal of Emergency Mental Health and Human Resilience*, 17(2), 486-494.

Ahmed, A., Arshad, M. A., Mahmood, A., & Akhtar, S. (2019). The influence of spiritual values on employee's helping behavior: the moderating role of Islamic work ethic. *Journal of Management, Spirituality & Religion*, 16(3), 235-263.

Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C. E., & Norton, M. I. (2013). Prosocial

spending and well-being: cross-cultural evidence for a psychological universal. *Journal of personality and social psychology, 104*(4), 635.

Aknin, L. B., Broesch, T., Hamlin, J. K., & Van de Vondervoort, J. W. (2015). Prosocial behavior leads to happiness in a small-scale rural society. *Journal of experimental psychology: General, 144*(4), 788.

Albert, L. S., & Moskowitz, D. (2014). Quarrelsomeness in the workplace: An exploration of the interpersonal construct within the organizational context. *Organizational Psychology Review, 4*(1), 27-48.

Albrech, S. L. (2011). Handbook of employee engagement: Perspectives, issues, research and practice. *Human Resource Management International Digest*.

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical psychology review, 30*(2), 217-237.

Alessandri, G., Luengo Kanacri, B. P., Eisenberg, N., Zuffianò, A., Milioni, M., Vecchione, M., & Caprara, G. V. (2014). Prosociality during the transition from late adolescence to young adulthood: The role of effortful control and ego-resiliency. *Personality and Social Psychology Bulletin, 40*(11), 1451-1465.

Alexander, D. A., & Klein, S. (2001). Ambulance personnel and critical incidents: impact of accident and emergency work on mental health and emotional well-being. *The British Journal of Psychiatry, 178*(1), 76-81.

Ali, K., & Johl, S. K. (2020). Impact of nurse supervisor on social exclusion and counterproductive behaviour of employees. *Cogent Business & Management, 7*(1), 1811044.

AlShammari, T., Jennings, P. A., & Williams, B. (2018). Emergency medical services core competencies: a scoping review. *Health Professions Education, 4*(4), 245-258.

Altehrebah, S. S. A. S., Yusr, M. M., & Salimon, M. G. (2019). Factors Influencing Employee Enagegement: A Study OF SANA'A University. *International Journal, 2*(9), 23-37.

Amani, M. (2022). Relationship between Personality Traits and Prosocial Behavior: The Moderating Role of Emotional Intelligence. *International Journal of Behavioral Sciences, 15*(4), 226-234.

Amano, H., Fukuda, Y., & Kawachi, I. (2020). Is higher work engagement associated with healthy behaviors? A longitudinal study. *Journal of Occupational and Environmental Medicine, 62*(3), e87-e93.

Amano, H., Fukuda, Y., Shibuya, K., Ozaki, A., & Tabuchi, T. (2021). Factors associated with the work engagement of employees working from home during the COVID-19

pandemic in Japan. *International journal of environmental research and public health*, 18(19), 10495.

Ambrose, M. L., Seabright, M. A., & Schminke, M. (2002). Sabotage in the workplace: The role of organizational injustice. *Organizational behavior and human decision processes*, 89(1), 947-965.

Amin, M., Khattak, A. Z & Khan M, Z. (2018). Effects of job stress on employee engagement and organizational commitment: a study on employees of emergency rescue service rescue 1122 district Peshawar. *City University Research Journal*, 08(02), 200-208.

Amjad, R., & Rafique, R. (2013). Quality of life at work as predictor of job commitment in 1122 rescue workers. *Pakistan Journal of Psychology*, 44(1).

Anasi, S. N. (2020). Perceived influence of work relationship, work load and physical work environment on job satisfaction of librarians in South-West, Nigeria. *Global Knowledge, Memory and Communication*.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual review of psychology*, 53(1), 27-51.

Andreoli, N., & Lefkowitz, J. (2009). Individual and organizational antecedents of misconduct in organizations. *Journal of Business Ethics*, 85(3), 309-332.

Anjum, M. A., & Parvez, A. (2013). Counterproductive behavior at work: A comparison of blue collar and white collar workers. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 7(3), 417-434.

Anwar, M. N., Sarwar, M., Awan, R.-u.-N., & Arif, M. I. (2011). Gender differences in workplace deviant behavior of university teachers and modification techniques. *International Education Studies*, 4(1), 193-197.

Appelbaum, S. H., & Roy-Girard, D. (2007). Toxins in the workplace: affect on organizations and employees. *Corporate Governance: The international journal of business in society*, 7(1), 17-28.

Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: the effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of applied psychology*, 86(1), 52.

Araujo, S. V. A., & Taylor, S. N. (2012). The influence of emotional and social competencies on the performance of Peruvian refinery staff. *Cross Cultural Management: An International Journal*.

Ariani, D. W. (2013). The relationship between employee engagement, organizational citizenship behavior, and counterproductive work behavior. *International Journal of Business Administration*, 4(2), 46.

Arnold, K. A., Dupré, K. E., Hershcovis, M. S., & Turner, N. (2011). Interpersonal targets and types of workplace aggression as a function of perpetrator sex. *Employee Responsibilities and Rights Journal*, 23(3), 163-170.

Aronson, E., Wilson, T.D. and Akert, R.M. (2010). *Social Psychology*. 7th Edition (Vol. ). Pearson Prentice Hall, Upper Saddle River. .

Ashkanasy, N. M., & Daus, C. S. (2002). Emotion in the workplace: The new challenge for managers. *Academy of Management Perspectives*, 16(1), 76-86.

Axelsson, S. B., & Axelsson, R. (2009). From territoriality to altruism in interprofessional collaboration and leadership. *Journal of Interprofessional care*, 23(4), 320-330.

Aydinli, A., Bender, M., & Chasiotis, A. (2013). Helping and volunteering across cultures: Determinants of prosocial behavior. *Online Readings in Psychology and Culture*, 5(3), 6.

Ayub, A., Sultana, F., Iqbal, S., Abdullah, M., & Khan, N. (2021). Coping with workplace ostracism through ability-based emotional intelligence. *Journal of Organizational Change Management*.

Baka, Ł. (2015). How do negative emotions regulate the effects of workplace aggression on counterproductive work behaviours? *Polish Psychological Bulletin*(3).

Bakker, A. B. (2014). Daily fluctuations in work engagement: An overview and current directions. *European Psychologist*, 19(4), 227.

Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European journal of work and organizational psychology*, 20(1), 4-28.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*.

Bandura, A. (2001a). The changing face of psychology at the dawning of a globalization era. *Canadian psychology/Psychologie canadienne*, 42(1), 12.

Bandura, A. (2001b). Social cognitive theory: An agentic perspective. *Annual review of psychology*, 52(1), 1-26.

Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1). Englewood cliffs Prentice Hall.

Barling, J., Dupré, K. E., & Kelloway, E. K. (2009). Predicting workplace aggression and violence. *Annual review of psychology*, 60(1), 671-692.

Barreiro, P. L., & Albandoz, J. P. (2001). Population and sample. Sampling techniques. *Management mathematics for European schools, 1*(1), 1-18.

Baruch, Y., O'Creevy, M. F., Hind, P., & Vigoda-Gadot, E. (2004). Prosocial behavior and job performance: Does the need for control and the need for achievement make a difference? *Social Behavior and Personality: an international journal, 32*(4), 399-411.

Basu, A., & Mermilliod, M. (2011). Emotional intelligence and social-emotional learning: An overview. *Online Submission, 1*(3), 182-185.

Batson & Powell, A. A. (2003). Altruism and pro-social Behaviour. In T. M. M. J. L. (Eds.) (Ed.), *Handbook of psychology: Personality and social psychology*, (Vol. 05, pp. 463-484). John Wiley & Sons, Inc.

Batson, C. D. (2010). Empathy-induced altruistic motivation.

Batson, C. D. (2011). *Altruism in Humans*. Oxford University Press.

Batson, C. D., Duncan, B. D., Ackerman, P., Buckley, T., & Birch, K. (1981). Is empathic emotion a source of altruistic motivation? *Journal of personality and Social Psychology, 40*(2), 290.

Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control. *Current directions in psychological science, 16*(6), 351-355.

Benedek, D. M., Fullerton, C., & Ursano, R. J. (2007). First responders: mental health consequences of natural and human-made disasters for public health and public safety workers. *Annual review of public health, 28*, 55.

Bennett, J., Pitt, M., & Price, S. (2012). Understanding the impact of generational issues in the workplace. *Facilities, 30*(7/8), 278-288.

Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of applied psychology, 85*(3), 349.

Berger, W., Figueira, I., Maurat, A. M., Bucassio, E. P., Vieira, I., Jardim, S. R., Coutinho, E. S., Mari, J. J., & Mendlowicz, M. V. (2007). Partial and full PTSD in Brazilian ambulance workers: prevalence and impact on health and on quality of life. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies, 20*(4), 637-642.

Bhanji, F., Donoghue, A. J., Wolff, M. S., Flores, G. E., Halamek, L. P., Berman, J. M., Sinz, E. H., & Cheng, A. (2015). Part 14: education: 2015 American Heart Association guidelines update for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation, 132*(18\_suppl\_2), S561-S573.

Bimrose, J., & Hearne, L. (2012). Resilience and career adaptability: Qualitative studies of adult career counseling. *Journal of Vocational Behavior, 81*(3), 338-344.

Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association, 22*(2), 27-30.

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: a primer. *Frontiers in public health, 6*, 149.

Bolino, M. C., & Grant, A. M. (2016). The bright side of being prosocial at work, and the dark side, too: A review and agenda for research on other-oriented motives, behavior, and impact in organizations. *Academy of Management Annals, 10*(1), 599-670.

Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior, 34*(4), 542-559.

Bolton, L. R., Harvey, R. D., Grawitch, M. J., & Barber, L. K. (2012). Counterproductive work behaviours in response to emotional exhaustion: A moderated mediational approach. *Stress and Health, 28*(3), 222-233.

Bonanno, G. A., & Burton, C. L. (2013). Regulatory flexibility: An individual differences perspective on coping and emotion regulation. *Perspectives on psychological science, 8*(6), 591-612.

Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of extension, 50*(2), 1-5.

Borman, W. C., Penner, L. A., Allen, T. D., & Motowidlo, S. J. (2001). Personality predictors of citizenship performance. *International journal of selection and assessment, 9*(1-2), 52-69.

Borry, E. L., & Henderson, A. C. (2020). Patients, protocols, and prosocial behavior: rule breaking in frontline health care. *The American Review of Public Administration, 50*(1), 45-61.

Bothma, C. F., & Roodt, G. (2013). The validation of the turnover intention scale. *SA journal of human resource management, 11*(1), 1-12.

Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: a theoretical model and meta-analysis. *Journal of applied psychology, 91*(5), 998.

Boyatzis, R. E., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). *Handbook of emotional intelligence, 99*(6), 343-362.

Boyatzis, R. E., Stubbs, E. C., & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. *Academy of Management Learning & Education, 1*(2), 150-162.

Boyatzis, R. E., Thiel, K., Rochford, K., & Black, A. (2017). Emotional and social intelligence competencies of incident team commanders fighting wildfires. *The Journal of Applied Behavioral Science, 53*(4), 498-516.

Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: a comparison of self-report and performance measures of emotional intelligence. *Journal of personality and social psychology, 91*(4), 780.

Brandt, G. T., Fullerton, C. S., Saltzgaber, L., Ursano, R. J., & Holloway, H. (1995). Disasters: Psychologic responses in health care providers and rescue workers. *Nordic Journal of Psychiatry, 49*(2), 89-94.

Brett, J. M., & Stroh, L. K. (2003). Working 61 plus hours a week: why do managers do it? *Journal of applied psychology, 88*(1), 67.

Briner, R. B. (2000). Relationships between work environments, psychological environments and psychological well-being. *Occupational medicine, 50*(5), 299-303.

Brock, J. M., Lange, A., & Leonard, K. L. (2016). Generosity and prosocial behavior in healthcare provision evidence from the laboratory and field. *Journal of Human Resources, 51*(1), 133-162.

Brown, M., & Cregan, C. (2008). Organizational change cynicism: The role of employee involvement. *Human Resource Management, 47*(4), 667-686.

Brown, W. E., Dawson, D., & Levine, R. (2003). C OMPENSATION, B ENEFITS, AND S ATISFACTION: T HE L ONGITUDINAL E MERGENCY M EDICAL T ECHNICIAN D EMOGRAPHIC S TUDY (LEADS) P ROJECT. *Prehospital Emergency Care, 7*(3), 357-362.

Bruursema, K., Kessler, S. R., & Spector, P. E. (2011). Bored employees misbehaving: The relationship between boredom and counterproductive work behaviour. *Work & Stress, 25*(2), 93-107.

Bülbül, A. (2014). Social work design and prosocial organizational behaviors. *Universal Journal of Psychology, 2*(2), 47-58.

Burton, W. N., Chen, C.-Y., Li, X., & Schultz, A. B. (2017). The association of employee engagement at work with health risks and presenteeism. *Journal of occupational and environmental medicine, 59*(10), 988-992.

Bushman, B. J., & Anderson, C. A. (2009). Comfortably numb: Desensitizing effects of violent media on helping others. *Psychological science*, 20(3), 273-277.

Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of applied psychology*, 87(5), 875.

Calderón-Tena, C. O., Knight, G. P., & Carlo, G. (2011). The socialization of prosocial behavioral tendencies among Mexican American adolescents: The role of familism values. *Cultural diversity and ethnic minority psychology*, 17(1), 98.

Cao, X., & Chen, L. (2019). Relationships among social support, empathy, resilience and work engagement in haemodialysis nurses. *International Nursing Review*, 66(3), 366-373.

Cao, X., & Chen, L. (2021). Relationships between resilience, empathy, compassion fatigue, work engagement and turnover intention in haemodialysis nurses: A cross-sectional study. *Journal of Nursing Management*, 29(5), 1054-1063.

Caprara, G. V., Steca, P., Zelli, A., & Capanna, C. (2005). A new scale for measuring adults' prosocialness. *European Journal of psychological assessment*, 21(2), 77.

Carlo, G., McGinley, M., Hayes, R., Batenhorst, C., & Wilkinson, J. (2007). Parenting styles or practices? Parenting, sympathy, and prosocial behaviors among adolescents. *The Journal of genetic psychology*, 168(2), 147-176.

Carlo, G., & Randall, B. A. (2002). The development of a measure of prosocial behaviors for late adolescents. *Journal of youth and adolescence*, 31(1), 31-44.

Carmeli, A., & Spreitzer, G. M. (2009). Trust, connectivity, and thriving: Implications for innovative behaviors at work. *The Journal of Creative Behavior*, 43(3), 169-191.

Carnagey, N. L., Anderson, C. A., & Bushman, B. J. (2007). The effect of video game violence on physiological desensitization to real-life violence. *Journal of experimental social psychology*, 43(3), 489-496.

Carpenter, S. (2018). Ten steps in scale development and reporting: A guide for researchers. *Communication methods and measures*, 12(1), 25-44.

Carrazales, A., Perche, C., & Lannegrand-Willems, L. (2019). Brief report: How many dimensions in the prosocial behavior scale? Psychometric investigation in French-speaking adolescents. *European Journal of Developmental Psychology*, 16(3), 340-348.

Caspi, A., Harrington, H., Milne, B., Amell, J. W., Theodore, R. F., & Moffitt, T. E. (2003). Children's behavioral styles at age 3 are linked to their adult personality traits at age 26. *Journal of personality*, 71(4), 495-514.

Castanheira, F., Chambel, M. J., Lopes, S., & Oliveira-Cruz, F. (2016). Relational job characteristics and work engagement: Mediation by prosocial motivation. *Military Psychology, 28*(4), 226-240.

Castellano, E., Muñoz Navarro, R., Toledo, M. S., Spontón, C., & Medrano, L. A. (2019). Cognitive processes of emotional regulation, burnout and work engagement. *Psicothema, 2019, vol. 31, num. 1, p. 73-80.*

Cattermole, G., Johnson, J., & Roberts, K. (2013). Employee engagement welcomes the dawn of an empowerment culture. *Strategic HR Review, 12*(5), 250-254.

Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: a 40-year meta-analysis. *Psychological Bulletin, 140*(4), 980.

Chancellor, J., Margolis, S., Jacobs Bao, K., & Lyubomirsky, S. (2018). Everyday prosociality in the workplace: The reinforcing benefits of giving, getting, and glimpsing. *Emotion, 18*(4), 507.

Chang, K., & Smithikrai, C. (2010). Counterproductive behaviour at work: an investigation into reduction strategies. *The International Journal of Human Resource Management, 21*(8), 1272-1288.

Chang, P. L., Chou, Y. C., & Cheng, F. C. (2007). Career needs, career development programmes, organizational commitment and turnover intention of nurses in Taiwan. *Journal of Nursing Management, 15*(8), 801-810.

Chapman, B. P., & Hayslip, J., Bert. (2005). Incremental validity of a measure of emotional intelligence. *Journal of personality assessment, 85*(2), 154-169.

Chapman, S. A., Blau, G., Pred, R., & Lopez, A. B. (2009). Correlates of intent to leave job and profession for emergency medical technicians and paramedics. *Career Development International.*

Chen, T. Y., Chang, P. L., & Yeh, C. W. (2004). A study of career needs, career development programs, job satisfaction and the turnover intentions of R&D personnel. *Career development international.*

Chen, Z., Eisenberger, R., Johnson, K. M., Sucharski, I. L., & Aselage, J. (2009). Perceived organizational support and extra-role performance: which leads to which? *The Journal of social psychology, 149*(1), 119-124.

Cherniss, C. (2010). Emotional intelligence: Toward clarification of a concept. *Industrial and organizational psychology, 3*(2), 110-126.

Chiu, R. K., Luk, V. W. M., & Tang, T. L. P. (2002). Retaining and motivating employees: Compensation preferences in Hong Kong and China. *Personnel review*.

Chow, C. M., Ruhl, H., & Buhrmester, D. (2013). The mediating role of interpersonal competence between adolescents' empathy and friendship quality: A dyadic approach. *Journal of adolescence*, 36(1), 191-200.

Chowdhury, S. M., & Gürtler, O. (2015). Sabotage in contests: a survey. *Public Choice*, 164(1), 135-155.

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel psychology*, 64(1), 89-136.

Chughtai, A. A., & Zafar, S. (2006). Antecedents and consequences of organizational commitment among Pakistani university teachers. *Applied HRM research*, 11(1), 39.

Chukwuma, I., Agbaeze, E., Madu, I., Nwakoby, N., & Icha-Ituma, A. (2019). Effect of nepotism on employee emotional engagement: Interplay of organisational politics. *Journal of Management Information and Decision Science*, 22(3), 273-283.

Chunchu, K., Mauksch, L., Charles, C., Ross, V., & Pauwels, J. (2012). A patient centered care plan in the EHR: improving collaboration and engagement. *Families, Systems, & Health*, 30(3), 199.

Ciarrochi, J., & Scott, G. (2006). The link between emotional competence and well-being: A longitudinal study. *British Journal of Guidance & Counselling*, 34(2), 231-243.

Clampitt, P. G. (2005). *Communicating for Managerial Effectiveness*. . Sage. CA.

Clarkson, G. P. (2014). Twenty-first century employment relationships: The case for an altruistic model. *Human Resource Management*, 53(2), 253-269.

Cocker, F., & Joss, N. (2016). Compassion fatigue among healthcare, emergency and community service workers: A systematic review. *International journal of environmental research and public health*, 13(6), 618.

Coetzee, M., & De Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1).

Cohen, A. (2016). Are they among us? A conceptual framework of the relationship between the dark triad personality and counterproductive work behaviors (CWBs). *Human Resource Management Review*, 26(1), 69-85.

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in

childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin, 143*(9), 939.

Cook, K. S., Cheshire, C., Rice, E. R., & Nakagawa, S. (2013). Social exchange theory. *Handbook of social psychology*, 61-88.

Cook, S. (2008). *The essential guide to employee engagement: better business performance through staff satisfaction*. Kogan Page Publishers.

Cooper-Thomas, H. D., Xu, J., & Saks, A. M. (2018). The differential value of resources in predicting employee engagement. *Journal of Managerial Psychology*.

Cooper, R. K. (1997). Applying emotional intelligence in the workplace. *Training & development, 51*(12), 31-39.

Corell-García, L., Merino-Soto, C., & Martí-Vilar, M. (2019). Systematic review of prosocial behavior measures. *Revista de Psicología, 37*(1), 349-377.

Cortina, L. M., Magley, V. J., Williams, J. H., & Langhout, R. D. (2001). Incivility in the workplace: incidence and impact. *Journal of occupational health psychology, 6*(1), 64.

Côté, S., & Miners, C. T. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative science quarterly, 51*(1), 1-28.

Couper, G. E., & Karimi, L. (2013). Heroes at risk: An overview of how emotional intelligence can reduce death and injury for firefighters. Second Emerging Research Paradigms in Business and Social Sciences Conference, Dubai,

Creamer, M., Wade, D., Fletcher, S., & Forbes, D. (2011). PTSD among military personnel. *International Review of Psychiatry, 23*(2), 160-165.

Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. *Academy of Management Perspectives, 21*(4), 34-48.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management, 31*(6), 874-900.

Crowther, F., Ferguson, M., & Hann, L. (2009). *Developing teacher leaders: How teacher leadership enhances school success*. Corwin Press.

Dal Santo, L., Pohl, S., Saiani, L., & Battistelli, A. (2014). Empathy in the emotional interactions with patients. Is it positive for nurses too? *Journal of Nursing Education and Practice, 4*(2), 74.

Dalal, R. S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of applied psychology, 90*(6), 1241.

Danish, R. Q., Ramzan, S., & Ahmad, F. (2013). Effect of perceived organizational support and work environment on organizational commitment: mediating role of self-monitoring. *Advances in Economics and Business, 1*(4), 312-317.

Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: diffusion of responsibility. *Journal of personality and social psychology, 8*(4p1), 377.

Das, J., Hammer, J., & Leonard, K. (2008). The quality of medical advice in low-income countries. *Journal of Economic perspectives, 22*(2), 93-114.

De Clercq, D., Rahman, Z., & Haq, I. U. (2019). Explaining helping behavior in the workplace: The interactive effect of family-to-work conflict and Islamic work ethic. *Journal of Business Ethics, 155*(4), 1167-1177.

De Dreu, C. K., & Nauta, A. (2009). Self-interest and other-orientation in organizational behavior: implications for job performance, prosocial behavior, and personal initiative. *Journal of applied psychology, 94*(4), 913.

De Soir, E., Knarren, M., Zech, E., Mynlie, J., Kleber, R., & van der Hart, O. (2012). A phenomenological analysis of disaster-related experiences in fire and emergency medical services personnel. *Prehospital and disaster medicine, 27*(2), 115-122.

Delfgaauw, J. (2007). Dedicated Doctors: Public and Private Provision of Health Care with Altruistic Physicians. *Tinbergen Institute Discussion Paper No. 2007-010/1*, 1-32.

Den Hartog, D. N., & Belschak, F. D. (2012). Work engagement and Machiavellianism in the ethical leadership process. *Journal of Business Ethics, 107*(1), 35-47.

Denham, S., von Salisch, M., Olthof, T., Kochanoff, A., & Caverly, S. (2002). Emotional and social development in childhood. *Blackwell handbook of childhood social development*, 307-328.

Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., & Queenan, P. (2003). Preschool emotional competence: Pathway to social competence? *Child development, 74*(1), 238-256.

Depow, G. J., Francis, Z., & Inzlicht, M. (2021). The experience of empathy in everyday life. *Psychological Science, 32*(8), 1198-1213.

Di, M., Deng, X., Zhao, J., & Kong, F. (2022). Psychometric properties and measurement invariance across sex of the Wong and Law Emotional Intelligence Scale in Chinese adolescents. *Psychological Reports, 125*(1), 599-619.

Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002). Dispositional affect and job outcomes. *Social Indicators Research, 59*(3), 229-259.

Dijk, C. F. V., & Freedman, J. (2007). Differentiating emotional intelligence in leadership. *Journal of Leadership Studies*, 1(2), 8-20.

Dineen, B. R., Lewicki, R. J., & Tomlinson, E. C. (2006). Supervisory guidance and behavioral integrity: relationships with employee citizenship and deviant behavior. *Journal of applied psychology*, 91(3), 622.

DiPrete, T. A., & Jennings, J. L. (2012). Social and behavioral skills and the gender gap in early educational achievement. *Social Science Research*, 41(1), 1-15.

Dixit, O., & Singh, S. (2019). Moderating influence of emotional intelligence on organisational citizenship behaviour and counterproductive work behaviour. *Journal of Strategic Human Resource Management*, 8(1), 26-31.

Donaldson, S. I., Csikszentmihalyi, M., & Nakamura, J. (2011). *Applied positive psychology: Improving everyday life, health, schools, work, and society*. Routledge.

Donnelly, E. A., Bradford, P., Davis, M., Hedges, C., & Klingel, M. (2016). Predictors of posttraumatic stress and preferred sources of social support among Canadian paramedics. *Canadian Journal of Emergency Medicine*, 18(3), 205-212.

Dou, K., Li, J.-B., Wang, Y.-J., Li, J.-J., Liang, Z.-Q., & Nie, Y.-G. (2019). Engaging in prosocial behavior explains how high self-control relates to more life satisfaction: Evidence from three Chinese samples. *PLoS one*, 14(10), e0223169.

Dreyfus, C. R. (2008). Identifying competencies that predict effectiveness of R&D managers. *Journal of Management Development*.

Druskat, V. U., Mount, G., & Sala, F. (2013). *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups*. Psychology Press.

Duarte, J., Pinto-Gouveia, J., & Cruz, B. (2016). Relationships between nurses' empathy, self-compassion and dimensions of professional quality of life: A cross-sectional study. *International journal of nursing studies*, 60, 1-11.

Ducharme, L. J., Knudsen, H. K., & Roman, P. M. (2007). Emotional exhaustion and turnover intention in human service occupations: The protective role of coworker support. *Sociological Spectrum*, 28(1), 81-104.

Ducharme, L. J., & Martin, J. K. (2000). Unrewarding work, coworker support, and job satisfaction: A test of the buffering hypothesis. *Work and occupations*, 27(2), 223-243.

Dul, J., Ceylan, C., & Jaspers, F. (2011). Knowledge workers' creativity and the role of the physical work environment. *Human Resource Management*, 50(6), 715-734.

Dulewicz, C., Young, M., & Dulewicz, V. (2005). The relevance of emotional intelligence for leadership performance. *Journal of General Management*, 30(3), 71-86.

Dunlop, P. D., & Lee, K. (2004). Workplace deviance, organizational citizenship behavior, and business unit performance: The bad apples do spoil the whole barrel. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(1), 67-80.

Dunn, J. (2013). Moral development in early childhood and social interaction in the family. In *Handbook of moral development* (pp. 135-159). Psychology Press.

Dupré, K. E., Dawe, K.-A., & Barling, J. (2014). Harm to those who serve: Effects of direct and vicarious customer-initiated workplace aggression. *Journal of interpersonal violence*, 29(13), 2355-2377.

Dyregrov, A., Kristoffersen, J. I., & Gjestad, R. (1996). Voluntary and professional disaster-workers: Similarities and differences in reactions. *Journal of Traumatic Stress*, 9(3), 541-555.

Eastman, J. K., Goldsmith, R. E., & Flynn, L. R. (1999). Status consumption in consumer behavior: Scale development and validation. *Journal of marketing theory and practice*, 7(3), 41-52.

Einolf, C. J. (2011). The link between religion and helping others: The role of values, ideas, and language. *Sociology of religion*, 72(4), 435-455.

Eisenberg, N. (1992). *The caring child* (Vol. 28). Harvard University Press.

Eisenberg, N. (2002). Distinctions among various modes of empathy-related reactions: A matter of importance in humans. *Behavioral and Brain Sciences*, 25(1), 33-34.

Eisenberg, N., Guthrie, I. K., Murphy, B. C., Shepard, S. A., Cumberland, A., & Carlo, G. (1999). Consistency and development of prosocial dispositions: A longitudinal study. *Child development*, 70(6), 1360-1372.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of applied psychology*, 86(1), 42.

Eldor, L. (2016). Work engagement: Toward a general theoretical enriching model. *Human Resource Development Review*, 15(3), 317-339.

Eldor, L. (2017). Looking on the bright side: The positive role of organisational politics in the relationship between employee engagement and performance at work. *Applied Psychology*, 66(2), 233-259.

Emmerling, R., & Goleman, D. (2005). Leading with Emotion Emotional intelligence predicts success. *Leadership Excellence*, 22(7), 9.

Evans, T. R., & Steptoe-Warren, G. (2019). *Applying Occupational Psychology to the Fire Service: Emotion, Risk and Decision-Making*. Springer.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological methods*, 4(3), 272.

Fachrunnisa, O., Gani, A., Nurhidayati, N., & Adhiatma, A. (2022). Cognitive engagement: a result of talent-based training to improve individual performance. *International Journal of Training Research*, 20(2), 141-159.

Fagbohungbe, B. O., Akinbode, G. A., & Ayodeji, F. (2012). Organizational determinants of workplace deviant behaviours: An empirical analysis in Nigeria. *International Journal of Business and Management*, 7(5), 207.

Farsides, T. (2007). The psychology of altruism. *The Psychologist*.

Fatima, A., Atif, Q. M., Saqib, A., & Haider, A. (2012). A path model examining the relations among organizational injustice, counterproductive work behavior and job satisfaction. *International Journal of Innovation, Management and Technology*, 3(6), 697.

Feigin, S., Owens, G., & Goodyear-Smith, F. (2014). Theories of human altruism: A systematic review. *Annals of Neuroscience and Psychology*, 1(1), 1-9.

Fida, R., Paciello, M., Tramontano, C., Fontaine, R. G., Barbaranelli, C., & Farnese, M. L. (2015). An integrative approach to understanding counterproductive work behavior: The roles of stressors, negative emotions, and moral disengagement. *Journal of Business Ethics*, 130, 131-144.

Fineman, S. (2004). Getting the measure of emotion-and the cautionary tale of emotional intelligence. *Human relations*, 57(6), 719-740.

Fisher, C. B., & Anushko, A. E. (2008). Research ethics in social science. *The SAGE handbook of social research methods*, 95-109.

Flanagan, N. A., & Flanagan, T. J. (2002). An analysis of the relationship between job satisfaction and job stress in correctional nurses. *Research in nursing & health*, 25(4), 282-294.

Fox, S., Spector, P. E., Goh, A., & Bruursema, K. (2007). Does your coworker know what you're doing? Convergence of self-and peer-reports of counterproductive work behavior. *International journal of stress management*, 14(1), 41.

Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59(3), 291-309.

Frank, F. D., Finnegan, R. P., & Taylor, C. R. (2004). The race for talent: Retaining and engaging workers in the 21st century. *Human resource planning*, 27(3).

Frank, J., & Ovens, H. (2002). Shiftwork and Emergency Medical Practice: Systematic Narrative Review. *CJEM: Journal of the Canadian Association of Emergency Physicians*, 4(2), 148.

Frazier, M. L., & Tupper, C. (2018). Supervisor prosocial motivation, employee thriving, and helping behavior: A trickle-down model of psychological safety. *Group & Organization Management*, 43(4), 561-593.

Frazier, P., Greer, C., Gabrielsen, S., Tennen, H., Park, C., & Tomich, P. (2013). The relation between trauma exposure and prosocial behavior. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(3), 286.

Freidlin, P., & Littman-Ovadia, H. (2020). Prosocial behavior at work through the lens of character strengths. *Frontiers in Psychology*, 10, 3046.

Froutan, R., Khankeh, H. R., Fallahi, M., Ahmadi, F., & Norouzi, K. (2015). Resiliency Improvements in medical emergency staff in burn missions: a qualitative study in an Iranian context. *Iranian Red Crescent Medical Journal*, 17(7).

Frye, L., & Wearing, A. (2011). The central mountain fire project: achieving cognitive control during bushfire response. *Journal of Cognitive Technology*, 16(2), 33-44.

Furnham, A., Treglown, L., Hyde, G., & Trickey, G. (2016). The bright and dark side of altruism: Demographic, personality traits, and disorders associated with altruism. *Journal of Business Ethics*, 134(3), 359-368.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.

Gale, S., Mordukhovich, I., Newlan, S., & McNeely, E. (2019). The impact of workplace harassment on health in a working cohort. *Frontiers in Psychology*, 11, 1181.

Gamberini, L., Chittaro, L., Spagnolli, A., & Carlesso, C. (2015). Psychological response to an emergency in virtual reality: Effects of victim ethnicity and emergency type on helping behavior and navigation. *Computers in Human Behavior*, 48, 104-113.

Gan, Y., Yang, C., Tong, X., Sun, H., Cong, Y., Yin, X., Li, L., Cao, S., Dong, X., & Gong, Y. (2015). Shift work and diabetes mellitus: a meta-analysis of observational studies. *Occupational and environmental medicine*, 72(1), 72-78.

Gärtner, A., Behnke, A., Conrad, D., Kolassa, I.-T., & Rojas, R. (2019). Emotion regulation in rescue workers: Differential relationship with perceived work-related stress and stress-related symptoms. *Frontiers in Psychology*, 9, 2744.

Geldenhuys, M., Taba, K., & Venter, C. M. (2014). Meaningful work, work engagement and organisational commitment. *SA Journal of Industrial Psychology*, 40(1), 1-10.

George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human relations, 53*(8), 1027-1055.

Gino, F., Schweitzer, M. E., Mead, N. L., & Ariely, D. (2011). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational behavior and human decision processes, 115*(2), 191-203.

Godé, C., Lenesley, P., & Buthion, V. (2019). A polycentric view of coordination in extreme action teams: Insights from pre-hospital emergency teams. *Recherches en Sciences de Gestion*(4), 163-190.

Goldman, A. (2006). High toxicity leadership: Borderline personality disorder and the dysfunctional organization. *Journal of Managerial Psychology*.

Grant, A. M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of management review, 32*(2), 393-417.

Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of applied psychology, 93*(1), 48.

Grant, A. M., & Berg, J. M. . ((2012)). *Prosocial motivation*. (Eds ed.). Oxford University Press.

Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007). Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior. *Organizational behavior and human decision processes, 103*(1), 53-67.

Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: prosocial and impression management motives as interactive predictors of affiliative citizenship behaviors. *Journal of applied psychology, 94*(4), 900.

Grant, A. M., & Sumanth, J. J. (2009). Mission possible? The performance of prosocially motivated employees depends on manager trustworthiness. *Journal of applied psychology, 94*(4), 927.

Gray, K. (2010). Moral transformation: Good and evil turn the weak into the mighty. *Social Psychological and Personality Science, 1*(3), 253-258.

Greenbaum, R. L., Mawritz, M. B., & Piccolo, R. F. (2015). When leaders fail to “walk the talk” supervisor undermining and perceptions of leader hypocrisy. *Journal of management, 41*(3), 929-956.

Greenberg, J. (2002). Who stole the money, and when? Individual and situational determinants of employee theft. *Organizational behavior and human decision processes*, 89(1), 985-1003.

Greenberg, J. (2011). *Insidious workplace behavior*. Routledge.

Greenidge, D., & Coyne, I. (2014). Job stressors and voluntary work behaviours: Mediating effect of emotion and moderating roles of personality and emotional intelligence. *Human Resource Management Journal*, 24(4), 479-495.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological inquiry*, 26(1), 1-26.

Grossman, P. J., & Parrett, M. B. (2011). Religion and prosocial behaviour: A field test. *Applied Economics Letters*, 18(6), 523-526.

Grossman, R. (2003). The Five-Finger Bonus Embezzlement drags down the bottom line at countless businesses each year. Fortunately, HR can help stem the losses. *HR MAGAZINE*, 48(10), 38-45.

Grote, R. C., & Grote, D. (2006). *Discipline without punishment*. Amacom Books.

Gruys, M. L., & Sackett, P. R. (2003). Investigating the dimensionality of counterproductive work behavior. *International journal of selection and assessment*, 11(1), 30-42.

Gulati, R., Wohlgezogen, F., & Zhelyazkov, P. (2012). The two facets of collaboration: Cooperation and coordination in strategic alliances. *Academy of Management Annals*, 6(1), 531-583.

Gupta, D., & Thapliyal, G. (2015). A Study of Prosocial Behaviour and Self Concept of Adolescents. *Journal on Educational Psychology*, 9(1), 38-45.

Hafidz, S., Hoesni, S., & Fatimah, O. (2012). The relationship between organizational citizenship behavior and counterproductive work behavior. *Asian Social Science*, 8(9), 32.

Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M., Johnson, R., Liberman, A., Moscicki, E., & Price, L. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *American journal of preventive medicine*, 33(2), S114-S129.

Halpern, J., Gurevich, M., Schwartz, B., & Brazeau, P. (2009). What makes an incident critical for ambulance workers? Emotional outcomes and implications for intervention. *Work & Stress*, 23(2), 173-189.

Halpern, J., Maunder, R. G., Schwartz, B., & Gurevich, M. (2011). Identifying risk of emotional sequelae after critical incidents. *Emergency Medicine Journal*, 28(1), 51-56.

Hamdani, F. K., Farid, S., Safdar, Z., Asghar, K., & Hamdani, A. K. (2019). Integrating IoT with Tactical Considerations Towards Improvements in Punjab Emergency Service (Rescue 1122). *Technical Journal*, 24(02).

Hamilton-West, K., Batesb, A., Hothamc, S., & Wilsond, P. (2019). Development of a training programme for primary care mental health staff to support management of depression and anxiety in long-term conditions. *Primary health care research & development*, 20.

Hanaysha, J. (2016). Testing the effects of employee engagement, work environment, and organizational learning on organizational commitment. *Procedia-Social and Behavioral Sciences*, 229, 289-297.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. *Journal of applied psychology*, 87(2), 268.

Hassan, B., Khattak, A. Z., Qureshi, M. S., & Iqbal, N. (2021). Development and validation of extremism and violence risk identification scale. *Pakistan journal of psychological research*, 51-70.

Hazzi, O. A., & Maldaon, I. S. (2012). Prosocial organizational behaviors: The lifeline of organizations. *European Journal of Economics, Finance and Administrative Sciences*, 54, 106-114.

Heilman, R. M., Crişan, L. G., Houser, D., Miclea, M., & Miu, A. C. (2010). Emotion regulation and decision making under risk and uncertainty. *Emotion*, 10(2), 257.

Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupré, K. E., Inness, M., LeBlanc, M. M., & Sivanathan, N. (2007). Predicting workplace aggression: a meta-analysis. *Journal of applied psychology*, 92(1), 228.

Hewstone, M., Stroebe, W., & Jonas, K. (2012). *An introduction to social psychology* (Vol. 17). John Wiley & Sons.

Higgs, M. (2004). A study of the relationship between emotional intelligence and performance in UK call centres. *Journal of Managerial Psychology*.

Hiriyappa, B. (2008). Organization behavior. *New Delhi-India: New Age International*.

Hitlan, R. T., & Noel, J. (2009). The influence of workplace exclusion and personality on counterproductive work behaviours: An interactionist perspective. *European journal of work and organizational psychology*, 18(4), 477-502.

Hoffman, M. L. (2008). Empathy and prosocial behavior. *Handbook of emotions*, 3, 440-455.

Hopkins, M. M., & Bilimoria, D. (2008). Social and emotional competencies predicting success for male and female executives. *Journal of management development*.

Hu, J., & Liden, R. C. (2015). Making a difference in the teamwork: Linking team prosocial motivation to team processes and effectiveness. *Academy of Management Journal*, 58(4), 1102-1127.

Huang, C.-J., Webb, H. E., Garten, R. S., Kamimori, G. H., Evans, R. K., & Acevedo, E. O. (2010). Stress hormones and immunological responses to a dual challenge in professional firefighters. *International journal of psychophysiology*, 75(3), 312-318.

Hughes, D. J., & Evans, T. R. (2018). Putting 'emotional intelligences' in their place: Introducing the integrated model of affect-related individual differences. *Frontiers in Psychology*, 9, 2155.

Hunter, L. J., Bierman, K. L., & Hall, C. M. (2018). Assessing noncognitive aspects of school readiness: The predictive validity of brief teacher rating scales of social-emotional competence and approaches to learning. *Early education and development*, 29(8), 1081-1094.

Huselid, M. A. (2018). The science and practice of workforce analytics: Introduction to the HRM special issue. In (Vol. 57, pp. 679-684): Wiley Online Library.

Hussain, J. S., & Naz, A. A. (2015). Public Perception towards Punjab Emergency Service Rescue 1122 in Lahore. *Pakistan Vision*, 16(2), 164.

Ifeyinwa, E. S., & Onodugo, V. A. (2020). ORGANIZATIONAL CITIZENSHIP BEHAVIOUR AND TURNOVER INTENTION OF DEPOSIT MONEY BANKS EMPLOYEES: EVIDENCE FROM NIGERIA. *Journal of Human Resource and Leadership*, 5(1), 15-35.

IJzerman, H., Karremans, J. C., Thomsen, L., & Schubert, T. W. (2013). Caring for sharing: How attachment styles modulate communal cues of physical warmth. *Social Psychology*, 44(2), 160.

Ilies, R., Hauserman, N., Schwuchau, S., & Stibal, J. (2003). Reported incidence rates of work-related sexual harassment in the United States: Using meta-analysis to explain reported rate disparities. *Personnel Psychology*, 56(3), 607-631.

Imran, M., Ishfaq, K., & Zulfiqar, Z. (2020). Public Perception towards Punjab Emergency Service (Rescue 1122): A Case Study of District Multan, Punjab, Pakistan. *Review of Applied Management and Social Sciences*, 3(1), 33-39.

Imran, M., Nasir, J. A., & Zaidi, S. A. A. (2015). RESCUE 1122: APPLICATION OF POISSON DISTRIBUTION. *Journal of University Medical & Dental College*, 6(4), 15-20.

Ito, J. K., & Brotheridge, C. M. (2003). Resources, coping strategies, and emotional exhaustion: A conservation of resources perspective. *Journal of Vocational Behavior*, 63(3), 490-509.

Jang, Y., Lee, A. A., Zadrozny, M., Bae, S.-H., Kim, M. T., & Marti, N. C. (2017). Determinants of job satisfaction and turnover intent in home health workers: The role of job demands and resources. *Journal of Applied Gerontology*, 36(1), 56-70.

Javed, Z., & Tariq, S. (2015). Perceived organizational justice, perceived organizational support, and employee engagement in Rescue 1122 employees. *Market Forces*, 10(1).

Javidi, H., Yadollahie, M. (2012). Post-Traumatic Stress Disorder. *The International Journal of Occupational and Environmental Medicine*, 03(01), 2-9.

Jiang, H. (2016). Employee personal Internet usage in the workplace. *Jyväskylä studies in computing*(257).

Jones, D. E., Karoly, L. A., Crowley, D. M., & Greenberg, M. T. (2015). Considering Valuation of Noncognitive Skills in Benefit-Cost Analysis of Programs for Children1. *Journal of Benefit-Cost Analysis*, 6(3), 471-507.

Jones, S. M., & Kahn, J. (2017). The Evidence Base for How We Learn: Supporting Students' Social, Emotional, and Academic Development. Consensus Statements of Evidence from the Council of Distinguished Scientists. *Aspen Institute*.

Jou, R. C., Kuo, C. W. & Tang, M. L. (2013). A Study of Job Stress and Turnover Tendency among Air Traffic Controllers: The Mediating Effects of Job Satisfaction. *Transportation Research Part E. Logistics and Transportation Review*, 57, 95-104.

Judeh, M. (2021). Effect of work environment on employee engagement: Mediating role of ethical decision-making. *Problems and Perspectives in Management*, 19(3), 221.

Judge, T. A., Scott, B. A., & Ilies, R. (2006). Hostility, job attitudes, and workplace deviance: test of a multilevel model. *Journal of applied psychology*, 91(1), 126.

Jung, H., Seo, E., Han, E., Henderson, M. D., & Patall, E. A. (2020). Prosocial modeling: A meta-analytic review and synthesis. *Psychological Bulletin*, 146(8), 635.

Jung, H. S., & Yoon, H. H. (2012). The effects of emotional intelligence on counterproductive work behaviors and organizational citizen behaviors among food and beverage employees in a deluxe hotel. *International Journal of Hospitality Management*, 31(2), 369-378.

Kaiser, H. F. (1974). An index of factorial simplicity. *psychometrika*, 39(1), 31-36.

Kamas, L., & Preston, A. (2021). Empathy, gender, and prosocial behavior. *Journal of Behavioral and Experimental Economics*, 92, 101654.

Kanste, O. (2011). Work engagement, work commitment and their association with well-being in health care. *Scandinavian journal of caring sciences*, 25(4), 754-761.

Karakuş, Ö. (2012). Relation between childhood abuse and self esteem in adolescence. *Journal of Human Sciences*, 9(2), 753-763.

Katsavouni, F., Bebetsos, E., Malliou, P., & Beneka, A. (2016). The relationship between burnout, PTSD symptoms and injuries in firefighters. *Occupational medicine*, 66(1), 32-37.

Kelloway, E. K., Francis, L., Prosser, M., & Cameron, J. E. (2010). Counterproductive work behavior as protest. *Human Resource Management Review*, 20(1), 18-25.

Kemeny, M. E., Foltz, C., Cavanagh, J. F., Cullen, M., Giese-Davis, J., Jennings, P., Rosenberg, E. L., Gillath, O., Shaver, P. R., & Wallace, B. A. (2012). Contemplative/emotion training reduces negative emotional behavior and promotes prosocial responses. *Emotion*, 12(2), 338.

Khalid, S. A., Kassim, K. M., Ismail, M., Noor, A. N. M., Rahman, N. A., & Zain, R. S. (2009). Emotional intelligence and organizational citizenship behavior as antecedents of students' deviance. *International Journal of Business and Management*, 4(7), 117-125.

Khanna, V., Sharma, E., & Chauhan, S. (2017). Effects of prosocial behavior on happiness and well-being. *The International Journal of Indian Psychology*, 4(2), 76-86.

Khattak, A. Z., Qureshi, M. S., & Khan, M. F. (2016). After effects of Army Public School (APS) terrorist attack on First Responders. *Science International (Lahore)*, 28(04), 747-749.

Khattak, A. Z., Bhati, M. I., & Wazir, S. T. M. (2022). Development and Psychometric Properties of Prosocial Behaviour Scale for Rescue Workers. *Annals of Human and Social Sciences*, 3(3), 505-517.

Khattak, A. Z., & Qureshi, M. S. U. (2020). Relationship between Job Stress and Job Satisfaction among Rescuers of Rescue 1122 Khyber Pakhtunkhwa. *Journal of Professional & Applied Psychology*, 1(1), 3-9.

Khattak, A. Z., Qureshi, M. S. U., & Amin, M. (2021). Effects of Self-Esteem on Job Satisfaction among Operational Rescuers of Rescue 1122 District Peshawar. *City University Research Journal*, 11(3).

Kim, H.-S., Kim, M., & Koo, D. (2022). From teamwork to psychological well-being and job performance: the role of CSR in the workplace. *International Journal of Contemporary Hospitality Management*(ahead-of-print).

Kim, J. (2015). What increases public employees' turnover intention? *Public Personnel Management*, 44(4), 496-519.

Kim, J. S., & Ausar, K. (2018). The impact of using a virtual employee engagement platform (VEEP) on employee engagement and intention to stay. *International Journal of Contemporary Hospitality Management*.

Kjeldsen, A. M., & Andersen, L. B. (2013). How pro-social motivation affects job satisfaction: An international analysis of countries with different welfare state regimes. *Scandinavian Political Studies*, 36(2), 153-176.

Knight, C., Patterson, M., & Dawson, J. (2017). Building work engagement: A systematic review and meta-analysis investigating the effectiveness of work engagement interventions. *Journal of Organizational Behavior*, 38(6), 792-812.

Koinis, A., Giannou, V., Drantaki, V., Angelaina, S., Stratou, E., & Saridi, M. (2015). The impact of healthcare workers job environment on their mental-emotional health. Coping strategies: the case of a local general hospital. *Health psychology research*, 3(1).

Kolstad, J. T. (2013). Information and quality when motivation is intrinsic: Evidence from surgeon report cards. *American Economic Review*, 103(7), 2875-2910.

Krishnakumar, S. (2008). *The role of emotional intelligence and job emotional requirements in job attitudes and behavior* Virginia Tech].

Krok, D. (2016). Can meaning buffer work pressure? An exploratory study on styles of meaning in life and burnout in firefighters. *Archives of Psychiatry and Psychotherapy*, 1, 31-42.

Kumar, S. (2011). Burnout and psychiatrists: what do we know and where to from here? *Epidemiology and Psychiatric Sciences*, 20(4), 295-301.

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of management*, 43(6), 1854-1884.

Lanza, A., Roysircar, G., & Rodgers, S. (2018). First responder mental healthcare: Evidence-based prevention, postvention, and treatment. *Professional Psychology: Research and Practice*, 49(3), 193.

LasisiOlukayode, J., Okuneye, M., & Shodiya, A. O. (2014). Antecedents of counter work behavior in public sector organizations: evidence from nigeria. *Kuwait Chapter of the Arabian Journal of Business and Management Review*, 3(9), 58.

Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annual review of psychology*, 56(1), 485-516.

Lau, V., Au, W. T., & Ho, J. (2003). A qualitative and quantitative review of antecedents of counterproductive behavior in organizations. *Journal of Business and Psychology*, 18(1), 73-99.

Lauri, M. A., & Calleja, S. S. (2019). Prosocial Behaviour and Psychological Wellbeing. In *Perspectives on Wellbeing* (pp. 46-62). Brill.

Lawler, E. J., & Yoon, J. (1996). Commitment in exchange relations: Test of a theory of relational cohesion. *American sociological review*, 89-108.

Lawn, S., Roberts, L., Willis, E., Couzner, L., Mohammadi, L., & Goble, E. (2020). The effects of emergency medical service work on the psychological, physical, and social well-being of ambulance personnel: a systematic review of qualitative research. *BMC psychiatry*, 20(1), 1-16.

Lay, J. C., & Hoppmann, C. A. (2015). Altruism and prosocial behavior. *Encyclopedia of geropsychology*, 5(2015), 1-9.

LeBlanc, M. M., & Kelloway, E. K. (2002). Predictors and outcomes of workplace violence and aggression. *Journal of applied psychology*, 87(3), 444.

Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: the role of affect and cognitions. *Journal of applied psychology*, 87(1), 131.

Leiter, M., & Maslach, C. (2017). Burnout and engagement: Contributions to a new vision, *Burnout Research*, 5, 55–57. In.

Leiter, M. P., & Maslach, C. (2017). Burnout and engagement: Contributions to a new vision. *Burnout research*, 5, 55-57.

Leon, M. R., Halbesleben, J. R., & Paustian-Underdahl, S. C. (2015). A dialectical perspective on burnout and engagement. *Burnout Research*, 2(2-3), 87-96.

Leonard, M. W., & Frankel, A. S. (2011). Role of effective teamwork and communication in delivering safe, high-quality care. *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*, 78(6), 820-826.

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? The roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, 54(9), 1155-1187.

Levy-Gigi, E., Bonanno, G. A., Shapiro, A. R., Richter-Levin, G., Kéri, S., & Sheppes, G. (2016). Emotion regulatory flexibility sheds light on the elusive relationship between repeated traumatic exposure and posttraumatic stress disorder symptoms. *Clinical psychological science*, 4(1), 28-39.

Levy, J., Yirmiya, K., Goldstein, A., & Feldman, R. (2019). The neural basis of empathy and empathic behavior in the context of chronic trauma. *Frontiers in psychiatry*, 10, 562.

Li, X., & Xie, X. (2017). The helping behavior helps lighten physical burden. *Basic and Applied Social Psychology*, 39(4), 183-192.

Liao, F.-Y., Yang, L.-Q., Wang, M., Drown, D., & Shi, J. (2013). Team-member exchange and work engagement: Does personality make a difference? *Journal of business and psychology*, 28(1), 63-77.

Liao, H., Su, R., Ptashnik, T., & Nielsen, J. (2022). Feeling good, doing good, and getting ahead: A meta-analytic investigation of the outcomes of prosocial motivation at work. *Psychological Bulletin*, 148(3-4), 158.

Liebe, U., Naumann, E., & Totic, A. (2019). Prosocial behavior across professional boundaries: Experimental evidence from hospitals. *SAGE Open*, 9(2), 2158244019846691.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.

Lindqvist, E., & Vestman, R. (2011). The labor market returns to cognitive and noncognitive ability: Evidence from the Swedish enlistment. *American Economic Journal: Applied Economics*, 3(1), 101-128.

Lips-Wiersma, M., & Hall, D. T. (2007). Organizational career development is not dead: A case study on managing the new career during organizational change. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 28(6), 771-792.

Lobburu, P. (2012). The influence of organizational and social support on turnover intention in collectivist contexts. *Journal of Applied Business Research (JABR)*, 28(1), 93-104.

Lockwood, N. R. (2007). Leveraging employee engagement for competitive advantage: HR's strategic role. *HR magazine*, 52(3), 1-11.

Long, C. S., & Perumal, P. (2014). Examining the Impact of Human Resource Management Practices on Employees Turnover Intention *International Journal of Business & Society*, 15(1).

Luthans, F., & Peterson, S. J. (2002). Employee engagement and manager self-efficacy. *Journal of management development*.

Luthar, S., Crossman, E., & Small, P. (2015). Resilience and adversity. *Handbook of Child Psychology Developmental Science*.

Lynton, R. P., & Pareek, U. (2011). *Training for development*. SAGE Publishing India.

Lyons, J. B., & Schneider, T. R. (2005). The influence of emotional intelligence on performance. *Personality and individual differences*, 39(4), 693-703.

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and organizational Psychology, 1*(1), 3-30.

Macey, W. H., Schneider, B., Barbera, K. M., & Young, S. A. (2011). *Employee engagement: Tools for analysis, practice, and competitive advantage*. John Wiley & Sons.

Maguire, B. J., Hunting, K. L., Guidotti, T. L., & Smith, G. S. (2005). Occupational injuries among emergency medical services personnel. *Prehospital Emergency Care, 9*(4), 405-411.

Malik, M. A. R., Butt, A. N., & Choi, J. N. (2015). Rewards and employee creative performance: Moderating effects of creative self-efficacy, reward importance, and locus of control. *Journal of Organizational Behavior, 36*(1), 59-74.

Mallén, F., Chiva, R., Alegre, J., & Guinot, J. (2015). Are altruistic leaders worthy? The role of organizational learning capability. *International Journal of manpower*.

Malokani, D. K. A. K., Munir, F., & Mehmood, A. (2022). Impact of Transformational Leadership, Work Engagement, Helping Behavior on Job Performance: Evidence from Islamic Banks of Hyderabad, Pakistan. *Journal of Development and Social Sciences, 3*(4), 417-424.

Mandell, B., & Pherwani, S. (2003). Relationship between emotional intelligence and transformational leadership style: A gender comparison. *Journal of business and psychology, 17*(3), 387-404.

Marmar, C. R., McCaslin, S. E., Metzler, T. J., Best, S., Weiss, D. S., Fagan, J., Liberman, A., Pole, N., Otte, C., & Yehuda, R. (2006). Predictors of posttraumatic stress in police and other first responders. *Annals of the New York Academy of Sciences, 1071*(1), 1-18.

Martela, F., & Ryan, R. M. (2016). Prosocial behavior increases well-being and vitality even without contact with the beneficiary: Causal and behavioral evidence. *Motivation and emotion, 40*, 351-357.

Martí-Vilar, M., Corell-García, L., & Merino-Soto, C. (2019). Revisión sistemática de medidas de conducta prosocial. *Revista de Psicología (PUCP), 37*(1), 349-377.

Martin, K. M., & Huebner, E. S. (2007). Peer victimization and prosocial experiences and emotional well-being of middle school students. *Psychology in the Schools, 44*(2), 199-208.

Masud, H., & Daud, W. N. W. (2019). Human resource management practices and organizational commitment: Research methods, issues, and future directions. *Review of Integrative Business and Economics Research, 8*, 217-226.

McCaughey, D., DelliFraine, J. L., McGhan, G., & Bruning, N. S. (2013). The negative effects of workplace injury and illness on workplace safety climate perceptions and health care worker outcomes. *Safety science*, 51(1), 138-147.

Meglino, B. M., & Korsgaard, A. (2004). Considering rational self-interest as a disposition: organizational implications of other orientation. *Journal of applied psychology*, 89(6), 946.

Meier, S. (2007). *A survey of economic theories and field evidence on pro-social behavior*. Mit Press.

Meyer, J. H., Shanahan, M. P., & Laugksch, R. C. (2005). Students' Conceptions of Research. I: A qualitative and quantitative analysis. *Scandinavian journal of educational research*, 49(3), 225-244.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: a conceptual analysis and integrative model. *Journal of applied psychology*, 89(6), 991.

Michael, O. S., & Crispen, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *African journal of business management*, 3(9), 410-415.

Miglianico, M., Dubreuil, P., Miquelon, P., Bakker, A. B., & Martin-Krumm, C. (2020). Strength use in the workplace: a literature review. *Journal of Happiness Studies*, 21(2), 737-764.

Mikulincer, M., & Shaver, P. R. (2010). *Prosocial motives, emotions, and behavior: The better angels of our nature*. JSTOR.

Miles, D. E., Borman, W. E., Spector, P. E., & Fox, S. (2002). Building an integrative model of extra role work behaviors: A comparison of counterproductive work behavior with organizational citizenship behavior. *International journal of selection and assessment*, 10(1-2), 51-57.

Miller, A., Unruh, L., Zhang, N., Liu, X., & Wharton, T. (2017). Professional quality of life of Florida emergency dispatchers. *International Journal of Emergency Services*.

Miller, M., Kiverstein, J., & Rietveld, E. (2022). The Predictive Dynamics of Happiness and Well-Being. *Emotion Review*, 14(1), 15-30.

Mills, G. E., & Gay, L. R. (2019). *Educational research: Competencies for analysis and applications*. ERIC.

Milovanović, I., Gentile, A., Gutović, T., Kezić, A., Matošić, D., Kreivytė, R., Valantine, I., Daidone, G., Bianco, A., & Radjo, D. (2020). Prosocial and aggressive behavior

occurrence in young athletes: field research results in six European countries. *Sustainability*, 12(12), 5085.

Mitonga-Monga, J., & Cilliers, F. (2016). Perceived ethical leadership: Its moderating influence on employees' organisational commitment and organisational citizenship behaviours. *Journal of Psychology in Africa*, 26(1), 35-42.

Molm, L. D., Collett, J. L., & Schaefer, D. R. (2007). Building solidarity through generalized exchange: A theory of reciprocity. *American journal of sociology*, 113(1), 205-242.

Morgado, F. F., Meireles, J. F., Neves, C. M., Amaral, A., & Ferreira, M. E. (2017). Scale development: ten main limitations and recommendations to improve future research practices. *Psicologia: Reflexão e Crítica*, 30.

Morren, M., Yzermans, C. J., Van Nispen, R. M., & Wevers, S. J. (2005). The health of volunteer firefighters three years after a technological disaster. *Journal of occupational health*, 47(6), 523-532.

Mottaz, C. J. (1999). The relative importance of intrinsic and extrinsic rewards as determinants of work satisfaction. *The sociological quarterly*, 26(3), 365-385.

Mroz, J., & Kaleta, K. (2016). Relationships between personality, emotional labor, work engagement and job satisfaction in service professions. *International journal of occupational medicine and environmental health*, 29(5), 767.

Muliawan, A. D., Green, P. F., & Robb, D. A. (2009). The turnover intentions of information systems auditors. *International Journal of Accounting Information Systems*, 10(3), 117-136.

Muller-Juge, V., Cullati, S., Blondon, K. S., Hudelson, P., Maître, F., Vu, N. V., Savoldelli, G. L., & Nendaz, M. R. (2014). Interprofessional collaboration between residents and nurses in general internal medicine: a qualitative study on behaviours enhancing teamwork quality. *PLoS one*, 9(4), e96160.

Mulligan, K., & Scherer, K. R. (2012). Toward a working definition of emotion. *Emotion Review*, 4(4), 345-357.

Munawar, M., & Sohail, T. (2017). Correlates Of Turnover Intention Among Rescue 1122 Workers. *Pakistan Journal of Applied Social Sciences*, 5(1), 15-31.

Munawar, S., Farid, T., Iqbal, S., & Gul, A. (2023). Exploring the Relationship between Self-Compassion and Prosocial Behavior among University Students; Mediating Role of Empathy. *Journal of Neuro and Spine*, 01(01).

Mushtaq, M., Abid, G., Sarwar, K., & Ahmed, S. (2017). Forging ahead: How to thrive at the modern workplace. *Iranian Journal of Management Studies*, 10(4), 783-818.

Nabe-Nielsen, K., Grynderup, M. B., Lange, T., Andersen, J. H., Bonde, J. P., Conway, P. M., Garde, A. H., Høgh, A., Kaerlev, L., & Rugulies, R. (2016). The role of poor sleep in the relation between workplace bullying/unwanted sexual attention and long-term sickness absence. *International archives of occupational and environmental health*, 89(6), 967-979.

Nadeem, M. (2010). Role of training in determining the employee corporate behavior with respect to organizational productivity: Developing and proposing a conceptual model. *International Journal of Business and Management*, 5(12), 206.

Naseer, R., Tahir, N., & Akbar, A. (2012). Role of rescue 1122 in the development of safer communities in Pakistan. *Injury Prevention*, 18(Suppl 1), A89-A89.

Nasurdin, A. M., Ling, T. C., & Khan, S. N. (2018). The Relation Between Turnover Intention, High Performance Work Practices (HPWPs) and Organizational Commitment: A Study Among Private Hospital Nurses In Malaysia *Asian Academy of Management Journal*, 23(1).

Naz, M., Mahmood, Z., Saleem, S., & Naseer, R. (2011). The Impact of Trauma on Rescue 1122 Workers. *FWU Journal of Social Sciences*, 5(1).

Nelson, S. K., Layous, K., Cole, S. W., & Lyubomirsky, S. (2016). Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing. *Emotion*, 16(6), 850.

Newman, A., Thanacoody, R., & Hui, W. (2012). The effects of perceived organizational support, perceived supervisor support and intra-organizational network resources on turnover intentions: A study of Chinese employees in multinational enterprises. *Personnel Review*.

Nielsen, M. B., & Einarsen, S. (2012). Prospective relationships between workplace sexual harassment and psychological distress. *Occupational medicine*, 62(3), 226-228.

Nienaber, H., & Martins, N. (2020). Exploratory study: determine which dimensions enhance the levels of employee engagement to improve organisational effectiveness. *The TQM Journal*.

Nikolaou, I., & Tsaousis, I. (2002). Emotional intelligence in the workplace: Exploring its effects on occupational stress and organizational commitment. *The International Journal of Organizational Analysis*.

North, C. S., Tivis, L., McMillen, J. C., Pfefferbaum, B., Spitznagel, E. L., Cox, J., Nixon, S., Bunch, K. P., & Smith, E. M. (2002). Psychiatric disorders in rescue workers after the Oklahoma City bombing. *American Journal of Psychiatry*, 159(5), 857-859.

Oberst, U., Gallifa, J., Farriols, N., & Vilaregut, A. (2009). Training emotional and social competences in higher education: The seminar methodology. *Higher Education in Europe*, 34(3-4), 523-533.

Omar, F., Halim, F. W., Zainah, A., Farhadi, H., Nasir, R., & Khairudin, R. (2011). Stress and job satisfaction as antecedents of workplace deviant behavior. *World Applied Sciences Journal*, 12(16), 45-51.

Ong, J. F. B., Tan, J. M. T., Villareal, R. F. C., & Chiu, J. L. (2019). Impact of quality work life and prosocial motivation on the organizational commitment and turnover intent of public health practitioners. *Review of Integrative Business and Economics Research*, 8, 24-43.

Ongore, O. (2014). A study of relationship between personality traits and job engagement. *Procedia-Social and Behavioral Sciences*, 141, 1315-1319.

Osborne, S., & Hammoud, M. S. (2017). Effective employee engagement in the workplace. *International Journal of Applied Management and Technology*, 16(1), 4.

Padilla-Walker, L. M., & Carlo, G. (2015). *Prosocial development: A multidimensional approach*. Oxford University Press.

Panno, A., Lauriola, M., & Figner, B. (2013). Emotion regulation and risk taking: Predicting risky choice in deliberative decision making. *Cognition & emotion*, 27(2), 326-334.

Papovic, S. (2009). Professional burnout syndrome. *Materia Socio-Medica*, 21(4), 213.

Patterson, P. D., Probst, J. C., Leith, K. H., Corwin, S. J., & Powell, M. P. (2005). Recruitment and retention of emergency medical technicians: a qualitative study. *Journal of Allied Health*, 34(3), 153-162.

Pawłowski, W., Lasota, D., Goniewicz, K., Goniewicz, M., & Misztal-Okońska, P. (2018). Personality and education profiles of emergency rescuer. *Journal of Education, Health and Sport*, 8(6), 173-185.

Pearson, C. M., & Porath, C. L. (2005). On the nature, consequences and remedies of workplace incivility: No time for "nice"? Think again. *Academy of Management Perspectives*, 19(1), 7-18.

Pelin, K., & Funda, E. (2013). The effect of organizational study on the employees of manufacturing. *The Ma Totheme Review*, 2(4), 144-160.

Penner, L. A. (2002). Dispositional and organizational influences on sustained volunteerism: An interactionist perspective. *Journal of social issues*, 58(3), 447-467.

Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annu. Rev. Psychol.*, 56, 365-392.

Penney, L. M., & Spector, P. E. (2005). Job stress, incivility, and counterproductive work behavior (CWB): The moderating role of negative affectivity. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 26(7), 777-796.

Perosanz, J. J. I., & Hayes, A. F. (2021). Mediation, Moderation, and Conditional Process Analysis: Concepts, Computations, and Some Common Confusions. *The Spanish Journal of Psychology*(24), 48.

Perryer, C., Jordan, C., Firns, I., & Travaglione, A. (2010). Predicting turnover intentions: The interactive effects of organizational commitment and perceived organizational support. *Management Research Review*, 33(9), 911-923.

Peter Angerer, A. M. (2015). *International Encyclopedia of the Social & Behavioral Science* (2nd Ed) (J.D.Wright, Ed. Vol. 17). Elsevier.

Peterson, C., & Seligman, M. E. (2012). Character Strengths and Virtues: A Handbook and Classification (New York: American Psychological Association & Oxford University Press, 2004). *Reflective Practice: Formation and Supervision in Ministry*, 32.

Petrou, P., Demerouti, E., Peeters, M. C., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior*, 33(8), 1120-1141.

Podsakoff, P. M., & MacKenzie, S. B. (1997). Impact of organizational citizenship behavior on organizational performance: A review and suggestion for future research. *Human performance*, 10(2), 133-151.

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of management*, 26(3), 513-563.

Prati, G., Pietrantoni, L., & Cicognani, E. (2011). Coping strategies and collective efficacy as mediators between stress appraisal and quality of life among rescue workers.

Prati, L. M., Douglas, C., Ferris, G. R., Ammeter, A. P., & Buckley, M. R. (2003). Emotional intelligence, leadership effectiveness, and team outcomes. *The international journal of organizational analysis*.

Prendergast, C. (2007). The motivation and bias of bureaucrats. *American Economic Review*, 97(1), 180-196.

Puangyoykeaw, K., & Nishide, Y. (2015). Organizational commitment and turnover intention in low-skilled immigrant workers in Thailand: An empirical assessment of need

satisfaction, job satisfaction and overall life satisfaction factors. *International Journal of Business and Management*, 10(5), 98.

Quain, S., Yidana, X. D., Ambotumah, B. B., & Mensah-Livivnstone, I. J. N. A. (2016). Pro-Social Behavior Amongst Students of Tertiary Institutions: An Explorative and a Quantitative Approach. *Journal of Education and Practice*, 7(9), 26-33.

Queiros, C., Kaiseler, M., & Da Silva, A. L. (2013). Burnout as a predictor of aggressivity among police officers.

Rabjohn, A. (2013). The human cost of being a 'first responder'. *Journal of Business Continuity & Emergency Planning*, 6(3), 268-271.

Raina, R. (2022). Moving Crisis to Opportunities: A Corporate Perspective on the Impact of Compassionate Empathic Behaviour on the Well-Being of Employees. *International Journal of Global Business and Competitiveness*, 17(2), 239-255.

Rana, M. S., Nazir, F., & William, K. (2020). Role of Rescue 1122 in Wildlife Welfare in Punjab, Pakistan. *Journal of Bioresource Management*, 7(2), 3.

Rand, D. G. (2016). Cooperation, fast and slow: Meta-analytic evidence for a theory of social heuristics and self-interested deliberation. *Psychological science*, 27(9), 1192-1206.

Rault, J.-L. (2019). Be kind to others: Prosocial behaviours and their implications for animal welfare. *Applied Animal Behaviour Science*, 210, 113-123.

Ray, S. L., Wong, C., White, D., & Heaslip, K. (2013). Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental health care professionals. *Traumatology*, 19(4), 255-267.

Rayner, C., & Keashly, L. (2005). Bullying at Work: A Perspective From Britain and North America.

Razik, S., Ehring, T., & Emmelkamp, P. M. (2013). Psychological consequences of terrorist attacks: Prevalence and predictors of mental health problems in Pakistani emergency responders. *Psychiatry research*, 207(1-2), 80-85.

Regehr, C. (2009). Social support as a mediator of psychological distress in firefighters. *The Irish Journal of Psychology*, 30(1-2), 87-98.

Regehr, C., Goldberg, G., & Hughes, J. (2002). Exposure to human tragedy, empathy, and trauma in ambulance paramedics. *American journal of orthopsychiatry*, 72(4), 505-513.

Regehr, C., Hill, J., Goldberg, G., & Hughes, J. (2003). Postmortem inquiries and trauma responses in paramedics and firefighters. *Journal of Interpersonal Violence*, 18(6), 607-622.

Reina, C. S., Rogers, K. M., Peterson, S. J., Byron, K., & Hom, P. W. (2018). Quitting the boss? The role of manager influence tactics and employee emotional engagement in voluntary turnover. *Journal of Leadership & Organizational Studies*, 25(1), 5-18.

Reizer, A., Galperin, B. L., & Koslowsky, M. (2020). Is Prosocial Behavior Always Good for the Workplace? On the Direction and Strength of the Relationship Between Prosocial Behaviors and Workplace Outcomes. In (Vol. 11, pp. 1886): Frontiers Media SA.

Renn, R., Allen, D., & Huning, T. (2013). The relationship of social exclusion at work with self-defeating behavior and turnover. *The Journal of social psychology*, 153(2), 229-249.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of applied psychology*, 87(4), 698.

Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of management journal*, 53(3), 617-635.

Righetti, F., Sakaluk, J. K., Faure, R., & Impett, E. A. (2020). The link between sacrifice and relational and personal well-being: A meta-analysis. *Psychological Bulletin*, 146(10), 900.

Rochat, P. (2003). Five levels of self-awareness as they unfold early in life. *Consciousness and cognition*, 12(4), 717-731.

Rochat, P., Broesch, T., & Jayne, K. (2012). Social awareness and early self-recognition. *Consciousness and cognition*, 21(3), 1491-1497.

Rodriguez, L. M., Martí-Vilar, M., Esparza Reig, J., & Mesurado, B. (2021). Empathy as a predictor of prosocial behavior and the perceived seriousness of delinquent acts: A cross-cultural comparison of Argentina and Spain. *Ethics & Behavior*, 31(2), 91-101.

Roopa, D., Nanjundeswaraswamy, T., & Swamy, D. (2016). An exploratory study on counterproductive work behaviors of nurses. *International Journal of Engineering and Management Research (IJEMR)*, 6(3), 685-692.

Rowntree, G., Atayero, S., Diem, M., Hoffmann, M., Jassi, A., Narusevicius, V., & Tsapekos, D. (2015). Resilience in emergency medical responders: A pilot study of a reflective journal intervention using a mixed methods approach. *Journal of European Psychology Students*, 6(2).

Rubel, M. R. B., & Kee, D. M. H. (2015). High commitment compensation practices and employee turnover intention: Mediating role of job satisfaction. *Mediterranean Journal of Social Sciences*, 6(6 S4), 321-321.

Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational behavior and human decision processes*, 89(1), 925-946.

Rutherford, S. (2001). Any difference? An analysis of gender and divisional management styles in a large airline. *Gender, Work & Organization*, 8(3), 326-345.

Sackett, P. R., Berry, C. M., Wiemann, S. A., & Laczo, R. M. (2006). Citizenship and counterproductive behavior: Clarifying relations between the two domains. *Human performance*, 19(4), 441-464.

Sadri, G. (2012). Emotional intelligence and leadership development. *Public Personnel Management*, 41(3), 535-548.

Sajithkumar, P., & Prakash, R. (2016). Prosocial Behaviour-A Major Determinant of Helping People in Health Emergency. *The International Journal of Indian Psychology*, 03(04), 53-56.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*.

Saks, A. M. (2022). Caring human resources management and employee engagement. *Human Resource Management Review*, 32(3), 100835.

Sal, A., & Raja, M. (2016). The impact of training and development on employees performance and productivity. *International Journal of Management Sciences and Business Research*, 5(7).

Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological science in the public interest*, 13(2), 74-101.

Samuel, M. O., Osinowo, H. O., & Chipunza, C. (2009). The relationship between bank distress, job satisfaction, perceived stress and psychological well-being of employees and depositors in Nigeria's banking sector. *African journal of business management*, 3(11), 624-632.

Saraih, U. N., Aris, A. Z. Z., Karim, K. M., Samah, I. H. A., Sa'aban, S., & Mutalib, S. A. (2017). Relationships between organizational commitment, OCB, organizational justice and turnover intention: Evidence from educational institution in Malaysia. *Review of Integrative Business and Economics Research*, 6(2), 64.

Sauro, J., & Lewis, J. R. (2011). When designing usability questionnaires, does it hurt to be positive? *Proceedings of the SIGCHI conference on human factors in computing systems*,

Schaufeli, W. (2012). Work engagement: What do we know and where do we go? *Romanian Journal of Applied Psychology*, 14(1), 3-10.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2003). Utrecht work engagement scale-9. *Educational and Psychological Measurement*.

Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 30(7), 893-917.

Schaufeli, W. B., Desart, S., & De Witte, H. (2020). Burnout Assessment Tool (BAT)—development, validity, and reliability. *International journal of environmental research and public health*, 17(24), 9495.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.

Schmutz, J., Hoffmann, F., Heimberg, E., & Manser, T. (2015). Effective coordination in medical emergency teams: The moderating role of task type. *European journal of work and organizational psychology*, 24(5), 761-776.

Scott, C., & Myers, K. K. (2005). The socialization of emotion: Learning emotion management at the fire station. *Journal of Applied Communication Research*, 33(1), 67-92.

Seal, C. R., Naumann, S. E., Scott, A. N., & Royce-Davis, J. (2011). Social emotional development: A new model of student learning in higher education. *Research in Higher Education Journal*, 10, 1.

Sekaran, U. (2003). Research Methods for Business, ; Marshal, J., McFadden, P., Eds. In: John Wiley & Sons Inc.: Hoboken, NJ, USA.

Sekiguchi, T. (2007). A contingency perspective of the importance of PJ fit and PO fit in employee selection. *Journal of Managerial Psychology*.

Serenko, A. (2020). Knowledge sabotage as an extreme form of counterproductive knowledge behavior: the perspective of the target. *Journal of Knowledge Management*, 24(4), 737-773.

Serra, D., Serneels, P., & Barr, A. (2011). Intrinsic motivations and the non-profit health sector: Evidence from Ethiopia. *Personality and Individual Differences*, 51(3), 309-314.

Serrat, O. (2017). Harnessing creativity and innovation in the workplace. In *Knowledge solutions* (pp. 903-910). Springer.

Setti, I., & Argentero, P. (2014). The role of mindfulness in protecting firefighters from psychosomatic malaise. *Traumatology: An International Journal*, 20(2), 134.

Shahinuzzaman, M., Hoque, I., & Saha, A. K. (2017). Counter Productive Work Behavior, Health and Safety Management System in the Ready Made Garments Industry of Bangladesh.

Shahzad, K., Bashir, S., & Ramay, M. I. (2008). Impact of HR practices on perceived performance of university teachers in Pakistan. *International review of business research papers*, 4(2), 302-315.

Shakespeare-Finch, J. (2011). Primary and secondary trauma in emergency personnel. *Traumatology*, 17(4), 1.

Shao, B., Cardona, P., Ng, I., & Trau, R. N. (2017). Are prosocially motivated employees more committed to their organization? The roles of supervisors' prosocial motivation and perceived corporate social responsibility. *Asia Pacific Journal of Management*, 34(4), 951-974.

Shapira-Lishchinsky, O., & Tsemach, S. (2014). Psychological empowerment as a mediator between teachers' perceptions of authentic leadership and their withdrawal and citizenship behaviors. *Educational Administration Quarterly*, 50(4), 675-712.

Sharifian, F. (2008). Cultural schemas in L1 and L2 compliment responses: A study of Persian-speaking learners of English.

Shimazu, A., Schaufeli, W. B., Kubota, K., & Kawakami, N. (2012). Do workaholism and work engagement predict employee well-being and performance in opposite directions? *Industrial health*, 50(4), 316-321.

Sim, M. R. (2011). Disaster response workers: are we doing enough to protect them? In (Vol. 68, pp. 309-310): BMJ Publishing Group Ltd.

Simpson, M. R. (2009). Engagement at work: A review of the literature. *International journal of nursing studies*, 46(7), 1012-1024.

Sinval, J., Marques-Pinto, A., Queirós, C., & Marôco, J. (2018). Work engagement among rescue workers: Psychometric properties of the Portuguese UWES. *Frontiers in Psychology*, 8, 2229.

Skeffington, P. M., Rees, C. S., & Mazzucchelli, T. (2017). Trauma exposure and post-traumatic stress disorder within fire and emergency services in Western Australia. *Australian Journal of Psychology, 69*(1), 20-28.

Sonderen, E. v., Sanderman, R., & Coyne, J. C. (2013). Ineffectiveness of reverse wording of questionnaire items: Let's learn from cows in the rain. *PloS one, 8*(7), e68967.

Sonnentag, S., & Grant, A. M. (2012). Doing good at work feels good at home, but not right away: When and why perceived prosocial impact predicts positive affect. *Personnel Psychology, 65*(3), 495-530.

Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *Journal of applied psychology, 95*(4), 781.

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior, 68*(3), 446-460.

Spreitzer, G., Sutcliffe, K., Dutton, J., Sonenshein, S., & Grant, A. M. (2005). A socially embedded model of thriving at work. *Organization science, 16*(5), 537-549.

Stassen, W., Van Nugteren, B., & Stein, C. (2013). Burnout among advanced life support paramedics in Johannesburg, South Africa. *Emergency Medicine Journal, 30*(4), 331-334.

Steers, R. M., Mowday, R. T., & Shapiro, D. L. (2004). The future of work motivation theory. In (Vol. 29, pp. 379-387): Academy of Management Briarcliff Manor, NY 10510.

Steinheider, B., Hoffmeister, V., Brunk, K., Garrett, T., & Munoz, R. (2020). Dare to care: exploring the relationships between socio-moral climate, perceived stress, and work engagement in a social service agency. *Journal of Social Service Research, 46*(3), 394-405.

Sterud, T., Ekeberg, Ø., & Hem, E. (2006). Health status in the ambulance services: a systematic review. *BMC health services research, 6*(1), 1-10.

Strazdins, L., Clements, M. S., Korda, R. J., Broom, D. H., & D'Souza, R. M. (2006). Unsocialable work? Nonstandard work schedules, family relationships, and children's well-being. *Journal of Marriage and Family, 68*(2), 394-410.

Sy, T., Tram, S., & O'hara, L. A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior, 68*(3), 461-473.

Sze, J. A., Gyurak, A., Goodkind, M. S., & Levenson, R. W. (2012). Greater emotional empathy and prosocial behavior in late life. *Emotion, 12*(5), 1129.

Tahir, I., Baloch, A., & Shujaat, S. (2018). FACTORS INFLUENCING COUNTERPRODUCTIVE WORK BEHAVIOUR IN PAKISTANI ORGANISATIONS. *ISSRA Papers*.

Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly, 35*(4), 57-75.

Takase, M. (2010). A concept analysis of turnover intention: Implications for nursing management. *Collegian, 17*(1), 3-12.

Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In *Self-regulation and self-control* (pp. 173-212). Routledge.

Tariq, F. T., & Naqvi, I. (2020). Relationship between personality traits and prosocial behavior among adolescents. *Foundation University Journal of Psychology, 4*(2), 54-63.

Teofisto, M. (2009). Perceived Organizational Support and Rewards Factor as Drivers of Employee Engagement. *International Journal of Operations & Production Management, 30*(15).

Tepper, B. J., Duffy, M. K., & Shaw, J. D. (2001). Personality moderators of the relationship between abusive supervision and subordinates' resistance. *Journal of applied psychology, 86*(5), 974.

Thielmann, I., Spadaro, G., & Balliet, D. (2020). Personality and prosocial behavior: A theoretical framework and meta-analysis. *Psychological Bulletin, 146*(1), 30.

Thompson, J. A., & Bunderson, J. S. (2003). Violations of principle: Ideological currency in the psychological contract. *Academy of management review, 28*(4), 571-586.

Thwala, W. D., Ajagbe, M. A., Enegbuna, W. I., Bilau, A. A., & Long, C. S. (2012). Sudanese small and medium sized construction firms: An empirical survey of job turnover.

Tipton, M. J., & Golden, F. S. C. (2011). A proposed decision-making guide for the search, rescue and resuscitation of submersion (head under) victims based on expert opinion. *Resuscitation, 82*(7), 819-824.

Tsai, H. Y. (2021). Role of psychological ownership in job crafting, work engagement, and counterproductive behavior. *Journal of Theoretical Social Psychology, 5*(4), 366-376.

Tufte, P. (2013). Is there time enough? Temporal resources and service performance in the Danish home care sector. *Nordic journal of working life studies Volume, 3*(2).

Twenge, J. M., Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Bartels, J. M. (2007). Social exclusion decreases prosocial behavior. *Journal of personality and social psychology, 92*(1), 56.

Umana, E., & Okafor, L. (2019). Employee/Management Sabotage Effects on Organizational Output. *Journal of Management and Strategy, 10*(3), 37-47.

Unsworth, K. L., Davis, M. C., Russell, S. V., & Bretter, C. (2021). Employee green behaviour: How organizations can help the environment. *Current Opinion in Psychology, 42*, 1-6.

Van den Berg, B., Bakker, A. B., & Ten Cate, T. J. (2013). Key factors in work engagement and job motivation of teaching faculty at a university medical centre. *Perspectives on medical education, 2*(5), 264-275.

Van der Ploeg, E., & Kleber, R. J. (2003). Acute and chronic job stressors among ambulance personnel: predictors of health symptoms. *Occupational and environmental medicine, 60*(suppl 1), i40-i46.

Van Dijk, P. A., & Brown, A. K. (2006). Emotional labour and negative job outcomes: An evaluation of the mediating role of emotional dissonance. *Journal of Management & Organization, 12*(2), 101-115.

Vardi, Y., & Weitz, E. (2003). *Misbehavior in organizations: Theory, research, and management*. Psychology Press.

Vazirani, N. (2007). Employee Engagement Working Paper. *SIES College of Management Studies Nerul. www. siescoms. edu.*

Velotti, L., & Murphy, P. (2020). Service and value co-production and co-creation in emergency services and emergency management. *International Journal of Emergency Services, 9*(1), 1-7.

Vestad, L., Bru, E., Virtanen, T. E., & Stallard, P. N. (2021). Associations of social and emotional competencies, academic efficacy beliefs, and emotional distress among students in lower secondary school. *Social Psychology of Education, 24*(2), 413-439.

Vieweg, J. C. (2018). Prosocial behaviors: Their motivations and impacts on organizational culture. *The Journal of Values-Based Leadership, 11*(2), 12.

Visser, M., Mills, M., Heyse, L., Wittek, R., & Bollettino, V. (2016). Work-life balance among humanitarian aid workers. *Nonprofit and Voluntary Sector Quarterly, 45*(6), 1191-1213.

Waite, R., McKinney, N., Sahl, M., Nguyen, P., & Fox, A. S. (2015). Strengthening emotional and social competence: undergraduate health professions students/Stärkung emotionaler und sozialer Kompetenzen bei Bachelorstudierenden in Gesundheitsberufen. *International Journal of Health Professions, 2*(2), 84-92.

Wallace, J. C., Butts, M. M., Johnson, P. D., Stevens, F. G., & Smith, M. B. (2016). A multilevel model of employee innovation: Understanding the effects of regulatory focus, thriving, and employee involvement climate. *Journal of management*, 42(4), 982-1004.

Walter, F., Cole, M. S., & Humphrey, R. H. (2011). Emotional intelligence: Sine qua non of leadership or folderol? *Academy of Management Perspectives*, 25(1), 45-59.

Wang, H., Zhou, X., Jia, X., Song, C., Luo, X., Zhang, H., Wu, H., & Ye, J. (2021). Emotional exhaustion in front-line healthcare workers during the COVID-19 pandemic in Wuhan, China: the effects of time pressure, social sharing and cognitive appraisal. *BMC Public Health*, 21(1), 1-10.

Warneken, F., & Tomasello, M. (2009). The roots of human altruism. *British Journal of Psychology*, 100(3), 455-471.

Warr, P., & Inceoglu, I. (2012). Job engagement, job satisfaction, and contrasting associations with person-job fit. *Journal of occupational health psychology*, 17(2), 129.

Waseem, H., Naseer, R., & Razzak, J. A. (2011). Establishing a successful pre-hospital emergency service in a developing country: experience from Rescue 1122 service in Pakistan. *Emergency Medicine Journal*, 28(6), 513-515.

Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: a meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, 138(4), 775.

Weinstein, N., & Ryan, R. M. (2010). When helping helps: autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of personality and social psychology*, 98(2), 222.

Welch, M. (2011). The evolution of the employee engagement concept: communication implications. *Corporate Communications: An International Journal*.

Welch, M. (2012). Appropriateness and acceptability: Employee perspectives of internal communication. *Public Relations Review*, 38(2), 246-254.

Wibowo, A., & Paramita, W. (2022). Resilience and turnover intention: the role of mindful leadership, empathetic leadership, and self-regulation. *Journal of Leadership & Organizational Studies*, 29(3), 325-341.

Wild, J., Smith, K., Thompson, E., Béar, F., Lommen, M., & Ehlers, A. (2016). A prospective study of pre-trauma risk factors for post-traumatic stress disorder and depression. *Psychological medicine*, 46(12), 2571-2582.

Williams, J. H., Fitzgerald, L. F., & Drasgow, F. (1999). The effects of organizational practices on sexual harassment and individual outcomes in the military. *Military Psychology, 11*(3), 303-328.

Wong, C.-S., Law, K. S., & Wong, P.-M. (2004). Development and validation of a forced choice emotional intelligence measure for Chinese respondents in Hong Kong. *Asia Pacific Journal of Management, 21*(4), 535-559.

Wong, M., & Power, T. G. (2019). Links between coping strategies and depressive symptoms among girls and boys during the transition to primary school. *Early Education and Development, 30*(2), 178-195.

Xiong, R., & Wen, Y. (2020). Employees' turnover intention and behavioral outcomes: The role of work engagement. *Social Behavior and Personality: an international journal, 48*(1), 1-7.

Yanay, U., Benjamin, S., & Yamin, H. G. (2011). Networking emergency teams in Jerusalem. *Disasters, 35*(1), 183-199.

Yang, J.-T., Wan, C.-S., & Fu, Y.-J. (2012). Qualitative examination of employee turnover and retention strategies in international tourist hotels in Taiwan. *International journal of hospitality management, 31*(3), 837-848.

Yang, J., & Diefendorff, J. M. (2009). The relations of daily counterproductive workplace behavior with emotions, situational antecedents, and personality moderators: A diary study in Hong Kong. *Personnel Psychology, 62*(2), 259-295.

Yang, J., Gong, Y., & Huo, Y. (2011). Proactive personality, social capital, helping, and turnover intentions. *Journal of Managerial Psychology, 26*(8), 739-760.

Yang, Y., Li, P., Fu, X., & Kou, Y. (2017). Orientations to happiness and subjective well-being in Chinese adolescents: The roles of prosocial behavior and internet addictive behavior. *Journal of Happiness Studies, 18*(6), 1747-1762.

Yasien, S., Nasir, J. A., & Shaheen, T. (2016). Relationship between psychological distress and resilience in rescue workers. *Saudi Medical Journal, 37*(7), 778.

Yasmin, K., & Marzuki, N. A. (2015). Impact of organizational commitment on intention to quit among psychiatric nurses: evidence from Pakistan. *International Journal of Learning and Development, 5*(4), 89-102.

Yin, O., Hee, O., Mahmood, R., & Hamli, M. (2018). Organizational Citizenship Behaviour and Turnover Intention among Generation Y in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 8*(7), 690-701.

Yoo, E.-T., & Cho, S.-J. (2013). The Impact of Emotional Exhaustion and Physical Symptoms in about Rescue Workers Incident Shock. *Journal of the Korean society of hazard mitigation*, 13(3), 69-76.

Yoo, H., Feng, X., & Day, R. D. (2013). Adolescents' empathy and prosocial behavior in the family context: A longitudinal study. *Journal of youth and adolescence*, 42(12), 1858-1872.

Yu-Ping, H., Chun-Yang, P., Ming-Tao, C., Chun-Tsen, Y., & Qiong-yuan, Z. (2020). Workplace friendship, helping behavior, and turnover intention: the mediating effect of affective commitment. *Advances in Management and Applied Economics*, 10(5), 1-4.

Yu, K., Liu, C., & Li, Y. (2019). Beyond social exchange: career adaptability linking work stressors and counterproductive work behavior. *Frontiers in Psychology*, 10, 1079.

Yusliza, M. Y., Faezah, J. N., Noor, N. M. M., Ramayah, T., Tanveer, M. I., & Fawehinmi, O. (2020). Effects of supportive work environment on employee retention: the mediating role of person-organisation fit. *Industrial and Commercial Training*.

Zahoor, I., Malik, N. I., & Atta, M. (2019). Relationship between job insecurity, workplace incivility and counterproductive work Behaviors among employees: Role of work family conflict. *Foundation university journal of psychology*, 3(2).

Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional intelligence in the workplace: A critical review. *Applied Psychology*, 53(3), 371-399.

Zeidner, M., Matthews, G., & Shemesh, D. O. (2016). Cognitive-social sources of wellbeing: Differentiating the roles of coping style, social support and emotional intelligence. *Journal of Happiness Studies*, 17(6), 2481-2501.

Zellars, K. L., Tepper, B. J., & Duffy, M. K. (2002). Abusive supervision and subordinates' organizational citizenship behavior. *Journal of applied psychology*, 87(6), 1068.

Zettler, I. (2022). A glimpse into prosociality at work. *Current Opinion in Psychology*, 44, 140-145.

Zhang, R., Redfern, K., Newman, M. A., & Ferreira-Meyers, K. (2016). If You Are Emotionally Intelligent: The effects of customer-related social stressors on counterproductive work behavior for front-line service employees. *International journal of selection and assessment*, 24(3), 260-271.

Zheng, J., Gou, X., Li, H., & Xie, H. (2021). Differences in mechanisms linking motivation and turnover intention for public and private employees: Evidence from China. *SAGE Open*, 11(3), 21582440211047567.

Zimmerman, R. D., & Darnold, T. C. (2009). The impact of job performance on employee turnover intentions and the voluntary turnover process: A meta-analysis and path model. *Personnel review*.

Zsolnai, A. (2002). Relationship between children's social competence, learning motivation and school achievement. *Educational psychology*, 22(3), 317-329.

Zsolnai, A., & JÜzsa, K. n. (2003). Possibilities of criterion referenced social skills development. *Journal of early childhood research*, 1(2), 181-196.

Zugelder, M. T., Champagne, P. J., & Maurer, S. D. (2006). An affirmative defense to sexual harassment by managers and supervisors: Analyzing employer liability and protecting employee rights in the United States. *Employee Responsibilities and Rights Journal*, 18(2), 111-122.

Zych, I., Ortega-Ruiz, R., Muñoz-Morales, R., & Llorent, V. J. (2018). Dimensions and psychometric properties of the Social and Emotional Competencies Questionnaire (SEC-Q) in youth and adolescents. *Revista Latinoamericana de Psicología*, 50(2), 98-106.

**APPENDICES****Appendix A**

To,

The District Emergency Officer  
ERS, Rescue 1122 KPK  
District Kohat

**Subject: Letter of Permission for Data Collection**

Respected sir/madam,

This letter is a written request to collect data from the operational rescue workers working under your supervision. I am Alamzeb PhD Psychology Scholar working under the supervision of Dr Mazhar Iqbal Bhati (Assistant Professor), Faculty of Social Sciences, Dept. of Psychology International Islamic University Islamabad, Pakistan.

This research is entitled "**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR ON THEIR JOB OUTCOMES: MODERATING ROLE OF SOCIAL AND EMOTIONAL COMPETENCE**".

The collected data will be fully confidential and cannot be shared. The said data will be used for accomplishment of PhD research and publication only.

We would be happy if you accept our request and grant us permission for data collection. We assure you not to disturb operational activities of the staff. Objectives, aims and nature of research will be explained in pre data collection meeting.

In case of any query, you can contact on the researcher mobile or email.

Sincerely,

**Alamzeb (Researcher)**  
PhD Psychology Scholar  
Dept of Psychology  
International Islamic University, Islamabad Pakistan  
Cell # +923363322191, +923145197017  
Email: masoomalam2016@gmail.com

**Dr. Mazhar Iqbal Bhati (Supervisor)**  
Dept of Psychology  
International Islamic University, Islamabad Pakistan

*District Emergency Officer  
ERS, Rescue 1122 KPK*

**Appendix B**

To,

The Station House in Charge  
 ERS, Rescue 1122 KPK  
 District Peshawar

**Subject: Letter of Permission for Data Collection**

Respected sir/madam,

This letter is a written request to collect data from the operational rescue workers working under your supervision. I am Alamzeb PhD Psychology Scholar working under the supervision of Dr Mazhar Iqbal Bhati (Assistant Professor), Faculty of Social Sciences, Dept. of Psychology International Islamic University Islamabad, Pakistan.

This research is entitled "**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR ON THEIR JOB OUTCOMES: MODERATING ROLE OF SOCIAL AND EMOTIONAL COMPETENCE**".

The collected data will be fully confidential and cannot be shared. The said data will be used for accomplishment of PhD research and publication only.

We would be happy if you accept our request and grant us permission for data collection. We assure you not to disturb operational activities of the staff. Objectives, aims and nature of research will be explained in pre data collection meeting.

In case of any query, you can contact on the researcher mobile or email.

Sincerely,

**Alamzeb (Researcher)**  
 PhD Psychology Scholar  
 Dept of Psychology  
 International Islamic University, Islamabad Pakistan  
 Cell # +923363322191, +923145197017  
 Email: masoomalam2016@gmail.com

**Dr. Mazhar Iqbal Bhati (Supervisor)**  
 Dept of Psychology  
 International Islamic University, Islamabad Pakistan

## Appendix C

### PARTICIPANTS INDIVIDUALS CONSENT FORM

**Assalam-o- Alaikum,**

I am Alamzeb PhD Psychology Scholar working under the supervision of Dr Mazhar Iqbal Bhati (Assistant Professor), Faculty of Social Sciences, Dept. of Psychology International Islamic University Islamabad, Pakistan.

This research is entitled "**EFFECTS OF RESCUE WORKERS PROSOCIAL BEHAVIOR ON THEIR JOB OUTCOMES: MODERATING ROLE OF SOCIAL AND EMOTIONAL COMPETENCE**". All of the data will be kept confidential and you can leave data collection process anytime. The collected data will be used for research and may be for publication only. Please tick in front of responses Yes or No in below statements.

1. I am agree to participate in this research on voluntary basis.      Yes      No
2. I am agree to participate in this research on voluntary basis and will never claim any payment/ expenses.      Yes      No
3. I am agree with the researcher to use this data for publication. Yes      No
4. I am fully entitled to leave whenever I want. Yes      No

Any Additional Information you want to Share.....

.....

Signature of the Participants..... Date.....

Signature of the Researcher..... Date.....

**Appendix D**  
**Demographic Data sheet**

**Name (Optional):**.....

**Gender**.....

**Age**.....

**Marital status**.....

**Number of Kids**.....

**Spouse Profession**... **House wife**..... **On job**.....

**Designation**.....

**Scale (BPS/SPS)**.....

**Nature of Job**.....

**Duty District**.....

**Duty Station**.....

**Current Duty Shift**.....

**Any Chronic Disorder**.....

**Any Psychological Disorder**.....

**Currently feeling any symptoms**.....

**Type of Emergency which you cannot forget**.....

.....

.....

**Any Additional Information you Want to Share**.....

.....

## Appendix E

### Initial List of Items

#### Prosocial Behavior Scale for Rescue Workers

S. No	Items	Never true 1	Occasionally true 2	Sometimes true 3	Often true 4	Always true 5
01	I get deep satisfaction after responding to a horrific emergency.					
02	I am always empathetic with those in trouble.					
03	I always try to console those who called rescue workers for help.					
04	I don't feel sexual attraction while working with female victims.					
05	I help the people beyond religious discrimination.					
06	I relentlessly seek inventive ways to protect the property of victims.					
07	Prosociality is necessary among all rescue workers.					
08	I also present myself for voluntary activities.					
09	My ego goes down, when I reached on the spot of emergency.					
10	Strong sense of duty compels me to offer support to the victims during rescue operations.					
11	High motivated individuals are more fit for rescue job.					
12	Emotionally stable individuals can do better help.					
13	Socially competent individuals can easily control the situations.					
14	My job is very close to social responsibility.					
15	I readily volunteer for additional shifts or tasks to ensure the well-being of those affected.					
16	I immediately got feelings of those in trouble.					
17	I am always available to help others in trouble.					
18	I frequently make extra efforts to assist those in need during emergency situations.					
19	I am always trying for the better care of those in trouble.					
20	I share my Personal protective equipment with my friends/ colleagues, if they need.					
21	I also help my friends and colleagues in the office.					
22	I immediately note my friend's discomfort.					
23	I am always available to share knowledge and skills with colleagues.					

24	I immediately put myself in the shoes of those crying for help.					
25	My job is IBADAT in other words					
26	Those rescuers with strong emotional stability provide superior assistance and support to victims.					
27	I try to help others beyond my job timing.					
28	I am not waiting my turn, when someone called for help.					
29	I am always feeling discomfort, when I miss an emergency.					
30	I am always trying to save property of victims.					

**Appendix F****Items List Approved by the Committee****Prosocial Behavior Scale for Rescue Workers**

S. No	Items	Never true 1	Occasionally true 2	Sometimes true 3	Often true 4	Always true 5
01	I get deep satisfaction after responding to a horrific emergency.					
02	I am always empathetic with those in trouble.					
03	I always try to console those who called rescue workers for help.					
04	I don't feel sexual attraction while working with female victims.					
05	I help the people beyond religious discrimination.					
06	My job is IBADAT in other words					
07	Prosociality is necessary among all rescue workers.					
08	I also present myself for voluntary activities.					
09	My ego goes down, when I reached on the spot of emergency.					
10	My job is very close to social responsibility.					
11	High motivated individuals are more fit for rescue job.					
12	Emotionally stable individuals can do better help.					
13	Socially competent individuals can easily control the situations.					
14	I try to help others beyond my job timing.					
15	I am not waiting my turn, when someone called for help.					
16	I immediately got feelings of those in trouble.					
17	I am always available to help others in trouble.					
18	I immediately put myself in the shoes of those crying for help.					
19	I am always trying for the better care of those in trouble.					

20	I share my Personal protective equipment with my friends/colleagues, if they need.					
21	I also help my friends and colleagues in the office.					
22	I immediately note my friend's discomfort.					
23	I am always available to share knowledge and skills with colleagues.					
24	I am always feeling discomfort, when I miss an emergency.					
25	I am always trying to save property of victims.					

11/2020

Dr. Saini

Asstt.

Dr. Saini  
Lecturer PG  
International Human Resource Management

### Appendix G

#### Final Version of the Scale (Prosocial Behavior Scale for Rescue Workers)

S. No	Items	Never true 1	Occasionally true 2	Sometimes true 3	Often true 4	Always true 5
1	I get deep satisfaction after responding to a horrific emergency.					
2	I am always empathetic with those in trouble.					
3	I always try to console those who called rescue workers for help.					
4	I also present myself for voluntary activities.					
5	I help the people beyond religious discrimination.					
6	Prosociality is necessary among all rescue workers.					
7	I am always available to help others in trouble.					
8	My ego goes down, when I reached on the spot of emergency.					
9	My job is very close to social responsibility.					
10	High motivated individuals are more fit for rescue job.					
11	Emotionally stable individuals can do better help.					
12	Socially competent individuals can easily control the situations.					
13	I immediately put myself in the shoes of those crying for help.					
14	I am always feeling discomfort, when I miss an emergency.					
15	I immediately got feelings of those in trouble.					
16	I don't feel sexual attraction while working with female victims.					
17	I try to help those in trouble beyond my job timings.					
18	I am always trying for the better care of those in trouble.					
19	I also help my friends and colleagues in the office.					
20	I immediately note my friend's discomfort.					
21	I am always available to share knowledge and skills with colleagues.					
22	I am not waiting my turn, when someone called for help.					
23	I am always trying to save property of victims.					

**Appendix H**  
**The Social and Emotional Competence Questionnaire (SEC-Q)**

Read the following sentences and answer indicating to what degree you are in agreement with each one of them using the following scale:

S.No	Sentences	Strongly Disagree 1	Somewhat disagree 2	Neither agree nor Disagree 3	Somewhat agree 4	Strongly agree 5
1	I know how to label my emotions.					
2	I am aware of the thoughts that influence my emotions.					
3	I differentiate one emotion from another.					
4	I know how my emotions influence what I do.					
5	I know how to motivate myself.					
6	I have my goals clear.					
7	I pursue my objectives despite the difficulties.					
8	I know what people expect from others.					
9	I pay attention to the needs of others.					
10	I usually know how to help others who need that.					
11	I have good relationships with my classmates or workmates.					
12	I usually listen in an active way.					
13	I offer help to those who need me.					
14	I make decisions analyzing carefully possible consequences.					
15	I usually consider the advantages and disadvantages of each option before I make decisions.					
16	I do not make decisions carelessly.					

## Appendix I

### Utrecht Work Engagement Scale (UWES)

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

0 Never	Almost never 1 A few times a year or less	Rarely 2 Once a month or less	Sometimes 3 A few times a month	Often 4 Once a week	Very often 5 A few times a week	Always 6 Every day
------------	-------------------------------------------------------	----------------------------------------	------------------------------------------	---------------------------	------------------------------------------	-----------------------------

1. \_\_\_\_\_ At my work, I feel bursting with energy.
2. \_\_\_\_\_ At my job, I feel strong and vigorous.
3. \_\_\_\_\_ I am enthusiastic about my job.
4. \_\_\_\_\_ My job inspires me.
5. \_\_\_\_\_ When I get up in the morning, I feel like going to work.
6. \_\_\_\_\_ I feel happy when I am working intensely.
7. \_\_\_\_\_ I am proud of the work that I do.
8. \_\_\_\_\_ I am immersed in my work.
9. \_\_\_\_\_ I get carried away when I'm working.

---

© Schaufeli & Bakker (2003). The Utrecht Work Engagement Scale is free for use for non-commercial scientific research. Commercial and/or non-scientific use is prohibited, unless previous written permission is granted by the authors.

**Appendix J****Short Version of the Counterproductive Work Behaviour Checklist (CWB-C)**

<b>How often have you done each of the following things on your present job?</b>		<b>Never</b>	<b>Once or twice</b>	<b>Once or twice/month</b>	<b>Once or twice/week</b>	<b>Every day</b>
1	Purposely wasted your employer's materials/supplies	1	2	3	4	5
2	Complained about insignificant things at work	1	2	3	4	5
3	Told people outside the job what a lousy place you work for	1	2	3	4	5
4	Came to work late without permission	1	2	3	4	5
5	Stayed home from work and said you were sick when you weren't	1	2	3	4	5
6	Insulted someone about their job performance	1	2	3	4	5
7	Made fun of someone's personal life	1	2	3	4	5
8	Ignored someone at work	1	2	3	4	5
9	Started an argument with someone at work	1	2	3	4	5
10	Insulted or made fun of someone at work	1	2	3	4	5

Short form was first used in Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *Journal of Applied Psychology*, 95(4), 781-790.

doi: <http://dx.doi.org/10.1037/a0019477>

CWB-C is copyright 2001 Paul E. Spector and Suzy Fox, All rights reserved.

## Appendix K

### Turnover Intension Scale (TIS)

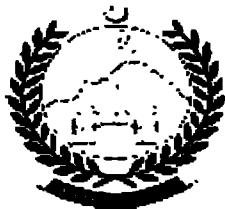
Copyright © 2004, G. Roodt

The following section aims to ascertain the extent to which you intend to stay at the organisation.

Please read each question and indicate your response using the scale provided for each question:

**DURING THE PAST 9 MONTHS.....**

1	How often have you considered leaving your job?	Never	1 — 2 — 3 — 4 — 5	Always
2	How satisfying is your job in fulfilling your personal needs?	Very satisfying	1 — 2 — 3 — 4 — 5	Totally dissatisfying
3	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	Never	1 — 2 — 3 — 4 — 5	Always
4	How often do you dream about getting another job that will better suit your personal needs?	Never	1 — 2 — 3 — 4 — 5	Always
5	How likely are you to accept another job at the same compensation level should it be offered to you?	Highly unlikely	1 — 2 — 3 — 4 — 5	Highly likely
6	How often do you look forward to another day at work?	Always	1 — 2 — 3 — 4 — 5	Never

**Appendix L**

**GOVERNMENT DEGREE COLLEGE BAGAN**  
**DISTRICT KURRAM KHYBER PAKHTUNKHWA**  
**Phone No: 0926411666,**  
**Email: gdrbagan@gmail.com**

**Dated: 29<sup>th</sup> May, 2023**

**CERTIFICATE OF PROOFREADING**

This document certifies that the manuscript listed below has been proofread for appropriate English language usage, grammar, punctuation, and spelling by the undersigned.

**Author: Mr. Alamzeb**

**Reg #: 70-FSS/PHDPSY/F-18**

**Title: Effect of Rescue Workers Prosocial Behaviour on Their Job Outcomes: Moderating role of Social and Emotional Competence**

MUHAMMAD TAHIR ANJUM  
Lecturer in English (BS-53)  
Govt. Degree College, Bagan  
District Kurram

***Muhammad Tahir Anjum***  
MPhil in English Literature  
Lecturer in English  
Government Degree College  
Bagan, District Kurram.  
Email: [tahiranjum53@hotmail.com](mailto:tahiranjum53@hotmail.com)

## Appendix M



**INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD (PAKISTAN)**  
**FACULTY OF SOCIAL SCIENCES**  
**DEPARTMENT OF PSYCHOLOGY**  
**+9251-9019902**

No. HU-FSS/PSY/DPEC/-2021- ۱۷۴

Oct 04, 2021

Alamzeb (PhD Scholar)  
 Department of Psychology,  
 International Islamic University, Islamabad

**REFERENCE: “Effects of Rescue Workers Prosocial Behavior on their Job Outcomes: Moderating Role of Social and Emotional Competence”**

Thank you for the application with attached documents on 29<sup>th</sup> Sep, 2021 for submitting a request for the above-mentioned title research to the committee (DPEC) for approval.

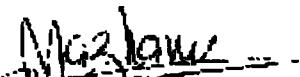
On behalf of the committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form and supporting documents. The favourable opinion is given that you comply with the stipulation set out in the committee mandate.

The list of documents reviewed and approved by the committee is as follows:

1. Application form
2. Informed consent
3. Information sheet

With the committee's best wishes for the success of this research article.

Yours Sincerely

  
**Dr. Muzaffar Iqbal Bhatti**  
 Acting Chairman Department of Psychology  
 Convener of Department of Psychology IIUI Ethics Committee (DPEC)

## Appendix N

### Author's Permission to use Social and Emotional Competencies Questionnaire

**Alam Zeb <alamzeb\_1122@yahoo.com>**

To:izych@uco.es

Fri, Nov 13, 2020 at 10:28 AM

I am Alam Zeb Khattak PhD Psychology Scholar at Dept. of Psychology International Islamic University Islamabad. I am interested to use your scale the Social and Emotional Competencies Questionnaire (SEC-Q) in my PhD research. my research participants are rescuers of Emergency Rescue Service Rescue 1122 KPK Pakistan. Therefore. it is humbly requested to plz allow me to use the scale and also provide me a copy of your scale plz. proper citation will be given where necessary.

Regards

Alam Zeb (Psychologist)

PhD (Psychology) Scholar IIU Islamabad

PGD Criminology

Lecturer Psychology,

Dept of Education & Psychology

Kohat University of Science & Technology Kohat. Pakistan.

+92-314-5197017

---

**Izabela Zych <izych@uco.es>**

To:Alam Zeb

Sat, Dec 5, 2020 at 12:04 AM

Dear Alam,

Thank you for your message. I am very happy to give you permission to use our scale. Please find all the details in the attachment.

best regards,

Izabela

-

**Izabela Zych, PhD**  
**Associate Professor**  
**Department of Psychology**  
**Universidad de Córdoba**  
**Spain**

[https://www.researchgate.net/profile/Izabela\\_Zych](https://www.researchgate.net/profile/Izabela_Zych)

<https://www.facebook.com/izabela.zych.1044>

Twitter: @IzabelaZych

## Appendix O

### Author's Permission to use Turnover Intentions Scale

**Alam Zeb <alamzeb\_1122@yahoo.com>**

To:groodt@uj.ac.za

Wed, Sep 9, 2020 at 2:15 PM

Hi Professor

i am Alam Zeb Khattak PhD Scholar at International Islamic University Islamabad Pakistan. I am interested to use your scale Turnover Intention in my research. Therefore, its humbly requested to plz grant me permission and share a soft copy of the questionnaire. your cooperation is seriously needed and it will be highly appreciated. proper citation will be given where necessary.

waiting for positive response

Regards

Alam Zeb (Psychologist)

PhD (Psychology) Scholar IIU Islamabad

PGD Criminology

Lecturer Psychology.

+

Dept of Education & Psychology

Kohat University of Science & Technology Kohat, Pakistan.

+92-314-5197017

**roodtg8@gmail.com**

To:'Alam Zeb'

Thu, Sep 10, 2020 at 12:52 PM

Dear Alam

You are welcome to use the TIS for your research. For this purpose please find the TIS-15 attached for your convenience. This TIS-6 (version 4) consists of the first six items high-lighted in yellow. You may use any one of these two versions. The TIS is based on the Theory of Planned Behaviour.

The only two conditions for using the TIS are that it may not be used for commercial purposes and second that it should be properly referenced as (Roodt, 2004) as in the article by Bothma & Roodt (2013) in the SA Journal of Human Resource Management (open access).

It is easy to score the TIS-6. Merely add the item scores to get a total score. The midpoint of the scale is 18 (3 x 6). If the total score is below 18 then it indicates a desire to stay. If the scores are above 18 it indicates a desire to leave the organisation. The minimum a person can get is 6 (6 x 1) and the maximum is 30 (5 x 6). No item scores need to be reflected (reverse scored).

It is recommended that you conduct a CFA on the item scores to assess the dimensionality of the scale. We found that respondents with a matric (grade

12) tertiary school qualification tend to understand the items better and consequently an uni-dimensional factor structure is obtained.

If you wish to translate the TIS in a local language, you are welcome to do so. It is recommended that a language expert is used in the translate - back translate method.

I wish you all the best with your research!

Best regards

Prof Gert Roodt

Show original message

This email and all contents are subject to the following disclaimer:

<http://disclaimer.uj.ac.za>

