

IMPACT OF SENSE OF COHERENCE ON STRESS AND WELL-BEING AMONG
UNIVERSITY STUDENTS



SHAMSHER HAYAT KHAN

105-FSS/MSPSY/S-13

Supervisor

MAZHAR IQBAL BHATTI

Department of Psychology

Faculty of Social Science

International Islamic University, Islamabad

JUNE 2015



Accession No TH 14987 (L) 9

MS
152.4
KHI

- Stress
- Emotions
- Feeling
-

**IMPACT OF SENSE OF COHERENCE ON STRESS AND WELL-BEING AMONG
UNIVERSITY STUDENTS**



SHAMSHER HAYAT KHAN

105-FSS/MSPSY/S-13

Supervisor

MAZHAR IQBAL BHATTI

Department of Psychology

Faculty of Social Science

International Islamic University, Islamabad

JUNE 2015

**“IMPACT OF SENSE OF COHERENCE ON STRESS AND WELL-BEING
AMONG UNIVERSITY STUDENTS”**

By

Shamsher Hayat Khan

105-FSS/MSPSY/S13

Dissertation Approved

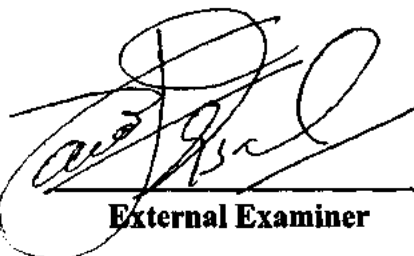
By



Supervisor



Internal Examiner



External Examiner



Dean Faculty of Social Sciences

**Department of Psychology Faculty of Social Sciences
INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD**

CERTIFICATE

It is to certified that dissertation on a “**IMPACT OF SENSE OF COHERENCE ON STRESS AND WELL-BEING AMONG UNIVERSITY STUDENTS**” , submitted by **Shamsher Hayat Khan** Registration No. 105-FSS-MSPSY-S-13 has been approved for submission in its present form as to satisfy the partial fulfillment of the degree of MS Clinical Psychology.



(Mr. Mazhar Iqbal Bhatti)

Supervisor

DECLARATION

"I declare that this thesis entitled "*Impact of Sense of Coherence on Stress and Well-being among University Students*" is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree".

Signature :



Author :

SHAMSHER HAYAT KHAN

Date :

11-9-15

DEDICATION

This thesis is dedicated to my beloved parents who have always loved me unconditionally and whose exemplary personalities have taught me to work hard for achieving goals.

ACKNOWLEDGEMENTS

Thanks to Almighty Allah who has given me the strengths and courage to complete this dissertation.

I would never have been able to finish my dissertation without the guidance of my supervisor, help of my friends, and support from my family and wife.

I would like to express my deepest gratitude to my supervisor, Mr Mazhar Iqbal Bhatti, for his guidance, caring, patience, and providing me an atmosphere for doing research.

I would also specially thank to Dr. Muhammad Tahir Khalily for continues guidance, support and encouragement throughout the research work. He is really a true educationist and my idealized person.

I would also thankful to Dr. Rabia Jawad, Dr. Shahid Irfan and Dr. Hamayyu Imtiaz for helping me in collecting the Data.

I would like to specially thank to my dearest friends Mr. Basharat Hussain and Mr. Hassan Arshad who have been helpful through my research.

I am also very thankful to the authorities of University of Pouch Rawalakot AJK, University of Azad Jummau and Kashmir, Muzaffarabad AJK and Mirpur University of Science and technology, Mirpur AJK who are helpful for collecting the data.

I would like to thank my Loving Parents who always support me in all the way. I would like to specially thank Dr. Noman Malik and Dr. Huma Hayat Khan for their excellent guidance for doing research. I would also like to thank them to patiently correct my writing. My research would not have been possible without their help.

ABSTRACT

The purpose of the present study was to investigate impact of sense of coherence on stress and well-being among the university students. Furthermore the aim of the present study is to find out the level of well-being and stress on sense of coherence among the Day scholars and hostalized university students of AJK from Urban and Rural areas. The study also explores the relationship and intensity of sense of coherence in the Day scholars and hostalized university students of AJK from Urban and Rural areas. The data for this study consisted of 332 students (n=146Males and n=186females). Only university students from disasters areas of AJK were taken for the present research. *Sense of coherence scale (SOC)* (Antonovsky, 2007), *Perceived stress scale (PSS)*(Sheldon Cohen, 1983) and *Warwick Edinburg Mental Well-being Scale (WEMWS)* (Stewart-Brown & Janmohamed, 2008)scales were used. The scalesSOCdeals with behavioural, thoughts and interpersonal skills. The PSS deals with the coping strategies of the students that they implement in their day to day life. The WEMWS deals with the physical, spiritual and psychological elements. A survey through questionnaire was conducted among the university students of natural disaster affected areas of Pakistan. Participants were approached at two public sector universities of AJK. SPSS-20.0 was used, which includes*Correlation* and *Multiple regression (ANOVA)*test for data analysis. Research finding indicates that there is no significant relationship found between SOC with Stress for hostalized and day scholars. Whereas there is a significant relation found between SOC and well-being for hostalized and day scholars, this may-be due to the fact that university students often belong to well-off families, are well groomed due to good parenting, have good social relations, more exposure and also take in positive effects of education.

Keyword: Behavioural, Interpersonal skills, spiritual and psychological elements

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	TABLE OF CONTENTS	vi
	LIST OF TABLES	viii
	LIST OF FIGURES	ix
	LIST OF ABBREVIATIONS	x
	LIST OF APPENDICES	xi
1	INTRODUCTION	1
	Background of Research	3
	Sense of Coherence	3
	Stress	5
	Well-being	6
	Relation of SOC with Stress and Well –being	7
	Rational of the Study	22
	Research Question and Objectives	23
	Scope of the Study	24
2	METHOD	25
	Research Design and Procedure	25
	Survey Methodology	26

	Quantitative Analysis	29
3	RESULTS AND ANALYSIS	30
	Survey Conduction	30
	Descriptive Statistics of Respondents	31
	Results Analysis Related to Day Scholars	41
	Correlation Analysis	41
	Multiple Regression Analysis	42
	Results Analysis Related to Hostalized	43
	Correlation Analysis	43
	Multiple Regression Analysis	45
4	DISCUSSION	47
	Research Summary	47
	Fulfilment of Research Objectives and Contribution of Study	48
	Limitations and Suggestions of Research	49
	Implications and Future Research	49
	Conclusion	50
	REFERENCES	52
	APPENDIX	55 – 61
	Sense of Coherence	58
	Stress	60
	Well-being	61

LIST OF TABLES

TABLE NO.	TITLE	PAGE
1	Existing Studies on SOC, Stress, and Wellbeing	10
2	Research Summary	25
3	Distributions of Respondents Based Upon their Gender	31
4	Distributions of Respondents Based Upon their Ages	33
5	Distributions of Respondents Based Upon their Marital Status	35
6	Distributions of Respondents Based Upon their Permanent Address	37
7	Distributions of Respondents Based Upon their Present Address	39
8	Correlation Among SOC with Stress and Wellbeing for Day Scholars	41
9	Multiple Regression (ANOVA) among SOC with Stress and Wellbeing for Day Scholars	42
10	Multiple Regression (Coefficients) among SOC with Stress and Wellbeing for Day Scholars	43
11	Correlation Among SOC with Stress and Wellbeing for Hostalized	44
12	Multiple Regression (ANOVA) among SOC with Stress and Wellbeing for Hostalized	45
13	Multiple Regression (Coefficients) among SOC with Stress and Wellbeing for Hostalized	45

LIST OF FIGURES

FIGURE NO	TITLE	PAGE
1	Distribution of respondents, based upon their ages	33
2	Distribution of respondents, based upon their gender	35
3	Distribution of respondents, based upon their marital status	37
4	Distribution of respondents, based upon their permanent address	39
5	Distribution of respondents, based upon their present address	41

LIST OF ABBREVIATIONS

AJK	Azad Jammu Kashmir
ANOVA	Analysis of Variance
GHQ	General Health Questionnaire
HBSC	Perceived Health Condition
HPLP	Help Promoting Lifestyle Profile
LOC	Locus of Control
NC	Degree of Conformity
PSS	Perceived Stress Scale
SOC	Sense of Coherence
WEMWS	Warwick Edinburg Mental Well-being Scale
SPSS	Statistical Package of Social Science

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Consent Form	56
B	Demographic Data	57
C	Sense of Coherence	58
D	Perceived stress scale	60
E	Warwick Edinburg Mental Well-being Scale	61

INTRODUCTION

Sense of coherence (SOC) is a significant theoretical construct for finding the role of stress throughout the human functioning. The Sense of coherence (SOC) is associated to physical and mental well-being, sense of coherence (SOC) also reveals stress handling or managing capability in relation to stress detection or recognition (Eriksson & Lindstrom, 2006). The Sense of coherence (SOC) defines as: "The global orientation that express the extent to which one has a pervasive, enduring through dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environment's in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by stimuli; and (3) these demands are challenges, worthy of investment and engagement" (Antonovsky, 1987).

The above definition is based on three main constructs that corresponds to one's life (a) comprehensibility, (b) manageability, and (c) meaningfulness. The Sense of coherence (SOC) acquires a "salutogenic" theoretical direction, which inquires to enlighten why people stay healthy, as contrasting to a "pathogenic" model, whose focal point is on what makes people ill. Sense of coherence (SOC) appears from comprehensive struggling and conflicting means, which considered the main psychosocial resources such as "a stable system of values, social support, cultural stability, wealth, ego strength, and beliefs derived from one's philosophy or religion", and several others that are effectual by keeping away and fighting a wide range of stressors (Antonovsky, 1979; Helen & Shifra, 1986).

Antonovsky (1987) argued that strong sense of coherence (SOC) is a significant factor to decrease stress and it enables persons to consider and believe that they can come upon the demands of the stressor (Kinman, 2008). According to Rath and Harter (2010) there are five

SENSE OF COHERENCE ON STRESS AND WELL-BEING

important elements for wellbeing, these elements although don't cover what is morally important in life. (1) career wellbeing: during day time where you spend most of your time, (2) Social Wellbeing: it represents the experience and association of dearest, (3) Financial Wellbeing: this is how well you manage your financial condition, (4) Physical Wellbeing: this tells the capacity of health and energy and (5) Community Wellbeing: it denotes your role and contribution within the community you live.

Stress occurred due to the countless events, some of major changes affecting large numbers of people, such as wars, earthquakes, land sliding, floods and nuclear accidents. Others are major changes in the life of an individual, i.e. moving to the new place, job change, and loss of friend, marriage, infected by a serious illness. Everyday hassles can also be experienced as stressors, i.e. struck in traffic, loss of wallet. Some stressors are acute, i.e. when struck in the unusual traffic jam on the way to reach some important place or meeting. Some stressors are chronic; it goes on extended period i.e. when in an unsatisfying marriage. Finally the source of stress can be within the individual, in the form of conflicting motives or desires. The stressful events can be categories in various ways. Traumatic events are external to the normal assortment of human experience, unpredictable events are the root cause of major changes in life circumstances.

The most important source of stress is shocking actions or the dangerous act that are not predictable by the human experience. These events include natural disasters, such as, earthquakes, floods and land sliding also the disasters through human actions i.e. confrontations, wars and nuclear accidents and the disastrous accident i.e. physical assault such as rape or attempted murders, any accident like car or plane crashes. Many people practise an explicit series of psychological retorts after traumatic event (Khalily, 2011; Horowitz, 1986). First, survivors

SENSE OF COHERENCE ON STRESS AND WELL-BEING

are shocked and appear to be ignorant of their injuries or of the risk. They may ramble around in a confused state, that taken them to risk for perhaps putting them at risk for more injury. For example, a person who survived through an earthquake may feel very fear when passed through buildings that are on the edge of fall. Fortunately, most of us never experience traumatic events. More common actions can lead to stress reactions, however there are four features of common events lead to their being perceived as stressful; predictability, controllability, internal conflicts, major changes in life situations. The degree to which an event is stressful differs from each individual. That is, people differ in the level to which they observe an event as governable, expectable, self-concept, a task to their skills, and it is mostly these evaluations that affect the perceived stressfulness of the event (Khalily, Foley, Hussain & Bano, 2011; Lazarus & Folkman, 1984).

Background of Research

Sense of Coherence

Antonovsky (1979) in the late seventies came up with a salutogenic approach to the birth of health versus the disease origins, based on the supposition that the human environment grounds strain. Accountable stressors for this are possibly cultural, social, genetic, geo-political and many others. The standard state of the human is one of disorder and variance rather than firmness and homeostasis. Antonovsky centred his attention on building order out of chaos, and emphasized the significance of resource handling to deal with stress. He came up with a construct that would differentiate the common components of a wide range of generalized resources of resistance, such as living circumstances of childhood, social support, cultural stability and many others. Consequently, he originated about what these various generalized resources resistance have in common is orientation of life, which he named sense of coherence (SOC) (Antonovsky, 1979). According to Antonovsky's (1987) SOC is defined as: "a global

SENSE OF COHERENCE ON STRESS AND WELL-BEING

orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that 1) the stimuli, deriving from ones internal and external environment in the course of living are structured, predictable and explicable; 2) the resources are available for one to meet the demands posed by these stimuli; 3) these demands are challenges, worthy of investment and engagement”.

SOC therefore has three key components: comprehensibility, manageability and meaningfulness (Antonovsky, 1979; Antonovsky, 1987; Smith & Meyers, 1997) findings are consistent with Antonovsky's findings, that SOC was optimistically associated with hardiness, locus of control and self-efficacy, whereas it is negatively associated with learned helplessness. It is argued that SOC is not a permanent trait in people to handle in certain manner in various situations, but it is a flexible life orientation in order to solve the problem and to cope through the mobilization of appropriate resources resistance.

It is found that SOC has also been explored in the context of personality traits. Few years ago the common opinion among the personality experts was that there is no existence of personality traits. However, the current researches describe the personality traits in an honoured status. There is extensive acceptance of personality model named as 'five-factor model', usually called the Big Five. According to this model the social and emotional life differences come under five general categories which are derived from factor analysis that is commonly named as neuroticism, extraversion, agreeableness, conscientiousness, and openness to experience (McAdams & Pals, 2006; Sutin, Costa, Wethington, & Eaton, 2010).

Feldt et al. (2007) reviewed the relationship among the SOC and the personality model 'five-factor model'. In their study they highlighted a strong negative association among a high SOC and neuroticism, and a reserved positive association among SOC and extraversion,

SENSE OF COHERENCE ON STRESS AND WELL-BEING

openness, conscientiousness and agreeableness. As a result it was concluded that SOC and reversed neuroticism are strongly related constructs.

Adding up to psychological component, SOC has a strong sociological component. It argues that coping is not limited to the concerned person rather it also relates with the communication among the people and the society around them. Thus in other words it concludes about the living context's human resources and circumstances. Antonovsky reported that salutogenesis was an interdisciplinary approach that brings coherence among various disciplines and understanding of what connects them with each other (Eriksson, 2007). Theory of SOC lies in the middle among sociology and psychology.

Stress

Existing research reported that the protection of life is significantly dependent on keeping our inner setting persistent in the response of an altering situation. This is named as "homeostasis" Cannon (1929). Term "stress" is used to represent the affects that threatens "homeostasis" Selye (1956). The real threat to an individual is known as the "stressor" whereas the response to the stressor is referred as the "stress response."

Although diverse situations are likely to elicit diverse prototypes of stress responses, but there are individual disparities in stress responses for the similar situation. This ability to show an exacting outline of stress responses across a range of stressors is known as "response stereotypy" (Lacey & Lacey, 1958). It is found that across multiple conditions, some persons tend to show stress reactions linked with active handling, whereas others tend to illustrate stress responses more linked with aversive vigilance (Llabre et al., 1998).

According to the Australian psychological society, when stressful events are faced by us then our bodies respond to them by triggering the nervous system and discharging hormones

SENSE OF COHERENCE ON STRESS AND WELL-BEING

such as adrenalin and cortisol. Due to these hormones physical changes in the body takes place which assist us too quickly and effectively react in order to get through the stressful situation, sometimes named as the 'fight or flight' response. These hormones results in increasing our heart rate, metabolism, muscle tension, and blood pressure. Although the physical changes assist us to meet the stressful situation challenges, however they can gives grounds to further physical or psychological symptoms. This happens if the stress is constant and the physical changes don't settle down.

There are diverse kinds of stress namely as 'Acute stresses, 'episodic acute stresses, and 'Chronic stresses. Acute stress is the stress which is brief and specific to the requirements and pressures of a specific situation, like deadline, facing a tough task or any disturbing event. Episodic acute stress is a type where people experience acute stress again and again. These kinds of iterative stresses can be due to real worrying tasks, such as, rising fitness hitches, losing a job and many others. Chronic stress is the stress that engages ongoing demands and pressures that appear to be eternal. This type of stress is very injurious towards people's health and happiness. Although people usually don't notice that they are used to this stress, however it carries on to let people depressed and it has a bad result on society and their health.

Well-Being

Generally, well-being is defined from two viewpoints which are; the clinical perspective and the psychological perspective. The clinical viewpoint describes well-being as the lack of negative conditions whereas the psychological viewpoint describes well-being as the occurrence of positive attributes. Positive psychological classifications of wellbeing broadly comprises of six common characteristics, which are: the dynamic search of well-being, a stability of traits, confident affect, pro social behaviour, personal optimization and many dimensions.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Gough & McGregor (2007) came up with well-being definition and defined it as “What people are notionally able to do and to be, and what they have actually been able to do and to be”. Although the philosophical literature relates to the ‘simple notion’ of well-being (such as ‘a life going well’) in a multiple ways, that includes a good health of a person, the benefits, prudential value, happiness, prosperous, helpfulness, quality of life, and flourishing. Angner (2008) summarizes current perspectives on well-being. According to him as: (1) “Well-being is an empty notion, or (2) well-being is an important and meaningful term which conveys meaning no other term conveys (and, given further research, will be shown to convey this meaning universally), or (3) well-being is ‘essentially contested’—its meaning and content fluctuates dependent on who is using it, and why they are using it”.

Similarly well-being is defined and reported by recent research that it is more than the deficiency of illness subjective (self-assessed) and objective (ascribed) dimensions. It is also reported that well-being is dignified at the level of individuals and “it accounts for elements of life satisfaction that cannot be defined, explained or primarily influenced by economic growth” (Camfield, Streuli, & Woodhead, 2010).

Similarly, Deiner (2009) defined Subjective Well-Being (SWB) as “the general evaluation of one’s quality of life. The concept has been conceptualized as the three components: (1) a cognitive appraisal that one’s life was good (life satisfaction); (2) experiencing positive levels of pleasant emotions; (3) experiencing relatively low levels of negative moods”.

Relation of SOC with Stress and Well-being

In 1979, Antonovsky reported that, regardless of being attacked by several stressors in daily living and going through rigorous painful experiences, some human beings handling fine and residing fit. This resulted in a concept called salutogenesis (Antonovsky, 1979), that emphasizes a focusing on fitness instead than on sickness (i.e., pathogenesis) (Heim, 1994).

SENSE OF COHERENCE ON STRESS AND WELL-BEING

SOC is referred as a universal coordination that articulates the level to which one has a general, lasting through active sentiments of coolness that individual's inner/outer situations are knowable and that it's having a great possibility that stuffs will work out (Antonovsky, 1987).

It has been reported by the existing studies that individuals SOC is a significant element of one's condition and well-being (Antonovsky, 1993; Rothmann, 2003). It is further reported that individuals SOC requires some essential fundamentals for handling effectively that are shown by the ideas of comprehensibility, manageability and meaningfulness (Antonovsky, 1987).

Comprehensibility relates with the level towards individual finds their selves logical, significant, arranged and reliable in its place of disordered, haphazard and irregular. Manageability relates with the extent to which individual practices occasions in life as conditions that are handy and can even be considered as new dares. Meaningfulness relates with the extent to which individual feels that life creates sense on an affecting and not unbiased on a cognitive rank, and that life's requirements are valuable of dedication. It is, basically, seeing handling as desirable.

It is evident from the existing literature that there is no doubt left about the individual's appraisal of a situation that it plays a main role in his/her well-being (Beck, 1997; Clark, 1999; Wells-Federman, Staurt-Shor & Webster, 2001). Each person evaluates situations in their own dissimilar way, and those evaluations affect the apparent strength of a stressor.

A pathogenic appraisal can start a nasty round of stress, whereas a salutogenic assessment can ease counterproductive emotions and give chances for handling properly with the situation. A strong SOC is also associated to general well-being (Feldt, 1997) and emotional steadiness (Mlonzi & Strümpfer, 1998). Antonovsky (1987) reported in his study that, an individual with a

SENSE OF COHERENCE ON STRESS AND WELL-BEING

strong SOC chooses the particular handling strategy that appears most suitable to deal with the stressor being tackled.

Based upon the studies discussed above in well-being, we found that there is a strong relation between the SOC, Stress, and Well-being and they need to be investigated. We have further extended our research by extending search for the studies that focuses the relation between SOC, Stress, and Well-being. Table 1 shows the studies that reports the relation

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Table 1

Existing studies on SOC, Stress, and Well-being

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well- being	Stress	Relation Between SOC, well- being and stress	Natural disastrous area
Yeresyan I, Lohaus A. (2014)	Adolescents from rural and urban areas of Turkey and Germany	Survey through questionnaire	<p>-The insight of stress is greater than Turkish adolescents aimed at German adolescents</p> <p>-Teenagers who live in rural parts exercise more stress than their urban colleagues of both countries</p> <p>-Youngsters in rural areas report lower wellbeing than adolescents in urban areas</p> <p>-Variance between urban and rural sections is only noticeable for teenagers who live in Turkey</p> <p>-Handling variables linked with social support and to solve family problems as well as variables related to the inter-reliant-</p>	x	√	√	Relation between stress and well-being	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
			<p>independent merit might be related as analysts</p> <p>-Most of the foreseeing variables showed non-moderated links. There were only few restraints associated to nation (Turkey vs Germany), locality (urban vs rural) or sex.</p>					
<p>Senjam Suraj, Amarjeet Singh 2008</p>	<p>Four randomly selected colleges of Chandigarh of north India, has been chosen to get the Indian graduate students.</p>	<p>Survey through questionnaire</p>	<p>- A positive correlation between Sense of coherence (SOC) and Health Promoting Lifestyle Profile (HPLP) totals of students were recognized.</p> <p>-Individual is more expected to have well HPLP score if the SOC score is high,</p> <p>-The mean HPLP and SOC scores showed that north Indian students had rationally good health helping profile as well as salutogenic direction and have higher sense of health duty.</p> <p>- Female students</p>	√	x	x	X	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
			reported more meaningful relationship with friends than male students					
Lise S and Mellem 2008	<p>the association and communications between high school students</p> <ul style="list-style-type: none"> - perceived stress (PSQ) - sense of coherence (SOC-13) -perceived health condition (HBSC) - recalls of childhood education detached for mother and fathers childrearing style (SEMBU) - locus of control (LOC) -degree of conformity (NC) 	Survey through questionnaire	<p>-The infancy's sense of coherence (SOC-13) looks quite pertinent for considerate their skill of stress (PSQ) in agreement with salutogenetic theory, in specific for males</p> <p>- The youths perceived stress (PSQ) seem pretty related for considerate their knowledge of health grievances (HBSC) particularly for females</p> <p>- The youths sense of coherence (SOC-13) look significant for understanding their experience of health complaints (HBSC) mainly for the groups where the level of SOC is both climaxing or short</p> <p>- The youths understanding of their</p>	√	x	√	Relationship between SOC and Stress	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
			<p>childhood (SEMBU) looks unclearly but not statistically expressively correlated to their sense of coherence (SOC-13) in the case of females</p> <p>- This study has showed a pointedly higher level of outer control linked to the strong control group in a earlier studies</p> <p>- Females report statistical knowingly more health complaints (HBSC), and higher level of stress then males</p>					
<p>Yoko Sumikawa Tsuno, Yoshihiko Yamazaki</p> <p>2012</p>	<p>-Relations between sense of coherence, coping resources, health position in an assessment of urban and rural citizens.</p> <p>- Mental health was measured by Goldberg's 12-item General Health Questionnaire (GHQ)</p>	<p>Survey through questionnaire</p>	<p>-Rural occupants stated expressively low self-esteem and optimism than urban residents</p> <p>- SOC showed the most substantial suggestion with mental health in both areas. Mental health was suggestively allied with physical activity confines and life stressors in both areas</p> <p>- This study measured</p>	√	x	x	<p>Relationship of SOC with Mental health</p> <p>x</p>	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
			<p>social capital to be an vital reserve that replicates regional features</p> <p>- Separately analysed urban A and rural B for the regional assessment. The chi-square test was used for cross tabulation, with Mann-Whitney U-test and t-tests used to study changes between two groups of non-stop data (0.05 level of statistical significance).</p>					
Chris G Richardson, Pamela A Ratner 2005	-This learning test the hypothesis of Antonovsky's idea of sense of coherence (SOC) restrains the health powers of stressful life events in a General population of Canada.	Survey through questionnaire	<p>-A linear regression model was used to test the ability of SOC to moderate the impact of RLE on SRH using longitudinal data from the 1998 and 2000 NPHS.</p> <p>-The effect of suffering a RLE on SRH seems to be completely lessened or hard in people with above average SOC.</p> <p>-The results of this study show that SOC shields</p>	√	x	√	SOC with stressful life events	x

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
			<p>the effect of fresh stressful life events (for example, family interruption, fiscal disaster, physical abuse) on self-reported health.</p> <p>-Research is desired to overtly examine the biopsychosocial devices underlying the growth and operative of SOC.</p>					
Yoko Sumikawa Tsuno, Yoshihiko Yamazaki 2007	-Study aims to inspect the association between the SOC and psychosocial generalize resistance resources, including socio demographic characteristics based on Antonovsky's theories.	Survey through questionnaire	<p>- SOC of both urban and rural residents correlate with social support and self-efficacy.</p> <p>- SOC positively linked with Social support and self-efficacy.</p> <p>-Other SOC related issues were found to diverge between urban and rural areas.</p>	√	x	x	X	x
Wanbin Ren 2009	-This study was conducted to see the SWB of the college students of rural and urban areas	Survey through questionnaire	-This survey shows that the well-being of rural college students is less than that of urban college students, so, this can be seen that the rural	x	√	x	SWB on rural and urban college students	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well-being	Stress	Relation Between SOC, well-being and stress	Natural disastrous area
	-For this the researcher used the SWB questioner		students have less talents than urban students in social communication and adaptive skills to environment					
Aalia Nosheen M. Naveed Riaz Naila Batool 2014	-Perceived Social Support Scale, Sense of Coherence Scale, Warwick Edinburg Mental Well-Being Scale and stress subscale of Depression Anxiety Stress Scales were used to collect the data	Survey through questionnaire	-This research shows that the positive role of social support and sense of coherence in mental health outcomes in general however increasing well-being and reducing stress in particular -This study observed the role of sense of coherence as mediator between social support and outcomes (well-being and stress) -The results of this study shows that the direct and indirect effect of sense of coherence on enhancing well-being and reducing stress. -Comparison shows that the collectivistic culture i.e. Pakistan and individualistic culture i.e. Germany with respect the direct and indirect role of sense of coherence in well-being	√	√	√	Social support and SOC, cross cultural study	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Reference	Research Domain (work on which area)	Research methodology	Outcome of study (contribution)	Gaps				
				SOC	Well- being	Stress	Relation Between SOC, well- being and stress	Natural disastrous area
			and stress -this research shows that social support is a superlative predictor of positive sense of coherence and sense of coherence is a mediator variable between social support and its mental health related outcomes including well-being and stress.					
Monika Binkowska- Bury, Pawel Januszewicz 2010	- relation between a sense of coherence and intensity of health-related behaviour among 521 Polish university students	Survey through questionnaire	-to conduct this study SOC-29 and inventory for health related behaviour is used. -	√	X	x	X	x

SENSE OF COHERENCE ON STRESS AND WELL-BEING

between the SOC, Stress, and Well-being directly or indirectly. Besides this we also wanted to search for those studies which not only reporting about the relationship among the three constructs (SOC, Stress, and Well-being), but also focused their studies for natural disastrous areas.

Yeresyan I., & Lohaus A. (2014) discussed in their study for the Adolescents from rural and urban areas of Turkey and Germany. The methodology used in this study is survey through questionnaire. The prime contribution of their research is to give the insight of stress is greater than Turkish adolescents aimed at German adolescents. Those teenagers who live in rural parts exercise more stress than their urban colleagues of both countries also youngsters in rural areas report lower wellbeing than adolescents in urban areas. The variance between urban and rural sections is only noticeable for teenagers who live in Turkey. These handling variables linked with social support and to solve family problems as well as variables related to the inter-reliant-independent merit might be related as analysts. Most of the foreseeing variables showed non-moderated links. There were only few restraints associated to nation (Turkey vs Germany), locality (urban vs rural) or sex.

Suraj S. & Singh A. (2008) also argued in their study on Four randomly selected colleges of Chandigarh of north India, has been chosen to get the Indian graduate students. The methodology used in this study is survey through questionnaire. In this study a positive correlation between Sense of coherence (SOC) and Health Promoting Lifestyle Profile (HPLP) totals of students were recognized. According to this study individual is more expected to have well HPLP score if the SOC score is high then the mean HPLP and SOC scores showed that north Indian students had rationally good health helping profile as well as salutogenic direction and have higher sense of health duty.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Lise & Mellem, (2008) discussed in the association and communications between high school students. The research conducted through survey questionnaire. The perceived stress (PSQ), sense of coherence (SOC-13) and perceived health condition (HBSC) scales are used. In this research the recalls of childhood education detached for mother and fathers childrearing style (SEMBU), locus of control (LOC) and degree of conformity (NC) also find. The infancy's sense of coherence (SOC-13) looks quite pertinent for considerate their skill of stress (PSQ) in agreement with salutogenetic theory, in specific for males. Also the youths perceived stress (PSQ) seem pretty related for considerate their knowledge of health grievances (HBSC) particularly for females. The youths sense of coherence (SOC-13) look significant for understanding their experience of health complaints (HBSC) mainly for the groups where the level of SOC is either climaxing or short. The youths understanding of their childhood (SEMBU) looks unclearly but not statistically expressively correlated to their sense of coherence (SOC-13) in the case of females. This study has showed a pointedly higher level of outer control linked to the strong control group in an earlier studies. The females report statistical knowingly more health complaints (HBSC), and higher level of stress than males.

Sumikawa Tsuno & Yamazaki, (2012) argued on relations between sense of coherence, coping resources, health position in an assessment of urban and rural citizens. For this study they have used survey through questionnaire. For this the mental health was measured by Goldberg's 12-item General Health Questionnaire (GHQ). The rural occupants stated expressively low self-esteem and optimism than urban residents. In this, SOC showed the most substantial suggestion with mental health in both areas. Mental health was suggestively allied with physical activity confines and life stressors in both areas. This study measured social capital to be a vital reserve that replicates regional features. For separately analysed urban A and rural B for the regional

SENSE OF COHERENCE ON STRESS AND WELL-BEING

assessment. The chi-square test was used for cross tabulation, with Mann–Whitney U-test and t-tests used to study changes between two groups of non-stop data (0.05 level of statistical significance).

Richardson G.C., & Ratner A.P. (2005) studied that this learning test the hypothesis of Antonovsky's idea of sense of coherence (SOC) restrains the health powers of stressful life events in a General population of Canada. The survey through questionnaire was used. A linear regression model was used to test the ability of SOC to moderate the impact of RLE on SRH using longitudinal data from the 1998 and 2000 NPHS. The effect of suffering a RLE on SRH seems to be completely lessened or hard in people with above average SOC. The results of this study show that SOC shields the effect of fresh stressful life events (for example, family interruption, fiscal disaster, physical abuse) on self-reported health. Research is desired to overtly examine the biopsychosocial devices underlying the growth and operative of SOC.

Tsuno S.Y., & Yamazaki Y. (2007) researched about the study aims to inspect the association between the SOC and psychosocial generalize resistance resources, including socio demographic characteristics based on Antonovsky's theories. This study was conducted by using the survey through questionnaire. In this study the SOC of both urban and rural residents correlate with social support and self-efficacy. The SOC positively linked with Social support and self-efficacy. Other SOC related issues were found to diverge between urban and rural areas.

Ren W. (2009) conducted this study to see the SWB of the college students of rural and urban areas. The study was conducted through survey questionnaire. For this the researcher used the SWB questioner. This survey shows that the well-being of rural college students is less than that of urban college students, so, this can be seen that the rural students have less talents than urban students in social communication and adaptive skills to environment.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Nosheen, Riaz & Batool, (2014) studied the Cross-Cultural Study on Social Support, Sense of Coherence and Outcomes in Pakistan and Germany. The survey through questionnaire were used. For this study the Perceived Social Support Scale, Sense of Coherence Scale, Warwick Edinburg Mental Well-Being Scale and stress subscale of Depression Anxiety Stress Scales were used to collect the data. This research shows that the positive role of social support and sense of coherence in mental health outcomes in general however increasing well-being and reducing stress in particular. This study observed the role of sense of coherence as mediator between social support and outcomes (well-being and stress). The results of this study shows that the direct and indirect effect of sense of coherence on enhancing well-being and reducing stress. Comparison shows that the collectivistic culture i.e. Pakistan and individualistic culture i.e. Germany with respect the direct and indirect role of sense of coherence in well-being and stress. This research shows that social support is a superlative predictor of positive sense of coherence and sense of coherence is a mediator variable between social support and its mental health related outcomes including well-being and stress.

After conducting the preliminary literature review, we found some of the most related studies to our research area. We explored them on basis of their domain, research methodology, and their outcomes. Besides this we critically reviewed each of the paper for its support to SOC, Stress, Well-Being, and to explore that whether these studies have conducted their research for natural disastrous areas or not.

We found that all of the above mentioned studies as shown in table 1 are significantly reporting the importance of the SOC, and its relation with stress or well-being. We found four studies that reported the SOC but did not investigate its relations with perspectives of Stress and Well-being. Besides this, these studies also lack to focus their findings towards the natural

SENSE OF COHERENCE ON STRESS AND WELL-BEING

disastrous areas (Suraj & Singh, 2008; Sumikawa Tsuno & Yamazaki, 2012; 2007; Binkowska-Bury & Januszewicz, 2010).

We found two studies that reported the SOC and its relation with Stress, but did not investigate its relations with Well-being. Besides this, these studies also lack to focus their findings towards the natural disastrous areas (Lise & Mellem, 2008; Richardson, 2005; Ratner, 2005).

Besides this among the studies shown and described in table 1, we found one study that is investigating the relation between stress and well-being and lacks to support the SOC perspectives (Yeresyan, 2014; Lohaus, 2014).

We found single study that is a cross cultural study that investigates the relation of the SOC with stress and well-being. Although this study has significantly highlighted the relation among the three constructs of our research domain (i.e. SOC, well-being and stress), but it lacks to map the findings for natural disastrous areas, rather it is conducted among the cross cultures of two different countries (Nosheen, Riaz & Batool, 2014). Hence, after reviewing the existing literature it is reported that there is a lack of research on investigating the relationship between Sense of coherence (SOC), stress and well-being on the naturally disasters area.

Rational of the Study

There are three fundamental factors that can boost an academic performance and ensure the success of the candidate. If they are found in harmony, this can assure the future success. These factors include: Sense of Coherence deals with behavioural, thought and interpersonal skills; well-being deals with physical, spiritual and psychological elements; and Stress deals with the coping strategies of the students that they face in their day to day life. Different researchers, academicians and educationists emphasis upon the development of these three broad factors

SENSE OF COHERENCE ON STRESS AND WELL-BEING

which play a pivotal role in students' life. Students can perform well, if his/ her psychosocial and emotional elements are in harmony with his/ her fellows, syllabi, teachers and other administrative staff. Optimistic students can deal well with the academic challenges that he/ she face in his/ her everyday life. Contemporary research in educational and social psychology found sense of coherence, well-being and stress management skills necessary for the students (Suraj, 2011; Binkowska-Bury & Januszewicz, 2010; Mellem, 2008). Looking at the significance of the above mentioned factors, we intend to see the frequency of these three among the day scholars and hostalized university students of AJK from urban and rural areas.

The aim of this study is to find out the association between well-being and stress on sense of coherence among the day and hostalized university students of AJK from Urban and Rural areas. The study explores the difference and intensity of sense of coherence in the day scholars and hostalized university students of AJK from urban and rural areas. The SOC scale scores and the well-being with stressful experiences in the university students determine ways to manage mental health among the day scholars and hostalized university students of AJK from urban and rural areas.

Research Question and Objectives

This research focuses on the following research question.

Research Questions: How sense of coherence can influence stress and well-being among university students of natural disaster affected areas?

In order to focus this research questions, this study bounds two research objectives:

Objective 1: To investigate the impact of sense of coherence on stress among the day scholars and hostilities students of universities of natural disaster affected areas.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Objective 2: To investigate the impact of sense of coherence on well-being among the day scholars and hostilities students of universities of natural disaster affected areas.

Scope of the Study

The scope of the study outlines the research activities and bound them to provide a focus of the research.

- 1) This research focuses on the stress, well-being and sense of coherence among the hostalized and day scholars students among university students.
- 2) A survey through questionnaire was conducted among the university students of natural disaster affected areas of Pakistan.
- 3) The questionnaire for sense of coherence is adopted from the work of "Antonovsky, 1987".
- 4) The questionnaire for stress is adopted from the work of "Sheldon Cohen".
- 5) The questionnaire for well-being was adopted from the work of "WEMWBS".
- 6) Statistical analysis was performed using SPSS among sense of coherence, stress and well-being.

METHOD

The research design and survey methodology used to conduct this research are described in detail. The overall research summary and the detail steps adopted to conduct a survey is also explained.

Research Design and Procedure

Table 2

Research summary

Research Question	Research Objectives	Methodology	Outcome
How sense of coherence can influence stress and well-being among university students of natural disaster affected areas?	To investigate the impact of sense of coherence on stress among the day scholars and the hostalized students of universities of natural disaster affected areas	Survey through questionnaire Kasunic (2005)	Comparison regarding the impact of sense of coherence on stress among the day scholars and the hostalized students of universities of natural disaster affected areas
	To investigate the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas		Comparison regarding the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas

The research question focused in this research; how sense of coherence can influence stress and well-being among university students of natural disaster affected areas? Is answered by using survey through questionnaire adopted by the guideline of Kasunic (2005). The outcome

SENSE OF COHERENCE ON STRESS AND WELL-BEING

of the survey result is the comparison regarding the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas.

Survey Methodology

A survey was conducted by following the guideline of Kasunic (2005). We followed his work as it is most commonly and widely used handbook for conducting effective survey.

Research objectives of Survey Conduction: The objectives for survey conduction were:

Objective 1: To investigate the impact of sense of coherence on stress among the day scholars and the hostalized students of universities of natural disaster affected areas.

Objective 2: To investigate the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas.

Target Audience: The target audience for our research was the university students of AJK including hostalized and day scholars. These students were more specifically categorized into rural and urban respectively. For appropriate identification of target audience, we focused on certain questions adapted from the work of Kasunic (2005). Table 3 shows the set of questions, we focused while identifying and characterizing our target audience.

Sampling: A sample is the subset of total population, having characteristics of the population. In this study, sample size represents both male and female students of AJK universities. The sample size play an important part in any study which helps us to find the difference between the populations from the given sample. There are five Public sector

SENSE OF COHERENCE ON STRESS AND WELL-BEING

universities in AJK where data was collected. For this, Random sampling technique will be used to achieve the sample size (n=332).

Questionnaire Development: A questionnaire was designed for; 1) To investigate the impact of sense of coherence on stress among the day scholars and the hostalized students of universities of natural disaster affected areas, 2) To investigate the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas. The questionnaire for sense of coherence, well-being, and stress are adopted from the studies of Antonovasky (2007), (Stewart-Brown & Janmohamed, 2008), and by Cohen (1983). The scales are detailed below.

Sense of Coherence Scale: In the present study, to measure sense of coherence among students the Sense of Coherence Scale Antonovasky (2007) will be used. The Sense of Coherence Scale comprised of 13 items and it is based on 7-point rating scale. "In the present study sense of coherence will be measured through Sense of Coherence Scale. High scores on the scale indicate high sense of coherence and low scores indicate low sense of coherence" (Suraj & Singh, 2011). Appendix C

Perceived Stress Scale: The perceive stress scale (PSS) is the most commonly used tool for evaluating stress. It is measure of the mark to which state is one's life as assessed as tense. This scale was designed by Sheldon Cohen (1983) to measure how unpredictable, uncontrollable and over loaded respondents find their lives. The PSS scale is attached in. Appendix D

Warwick Edinburg Mental Well-being Scale: In the present study Warwick Edinburg Mental Well-being Scale will be used to measure well-being among students (Stewart-Brown & Janmohamed, 2008). WEMWS comprised of 14 items and it is based on 5-point rating scale. Questionnaire 2 attached in Appendix B is used for measuring mental well-being. "In the present

SENSE OF COHERENCE ON STRESS AND WELL-BEING

study well-being is measured through Warwick Edinburg Mental Well-being Scale. High scores on the scale indicate high well-being and low scores indicate low well-being” (Stewart-Brown & Janmohamed, 2008). Appendix E

Pilot Test Questionnaire: The questionnaire development process included a pilot study, which was used for modifications and eliminations related to the information and questions mentioned in the questionnaire until the final questionnaire was designed. We conducted the pilot study for validation and improvement of the questionnaire, in terms of the statements, wordings, sequencing along with the potential interests of the participants. The questionnaire was forwarded to 15 members of the target audience. Their comments were generally related to wordings of the questions and statements. Some of the respondents commented that they faced difficulty in understanding the wordings. Similarly some shown concerns related to questions descriptions. Based on their comments and suggestions the questionnaire was modified and improved. The questions and statements were corrected and improved for their clear and accurate understandings.

Questionnaire Distribution and Data Collection: After completing the pilot study the survey package was sent to the target audience. The survey package comprised of an invitation email and questionnaire. In this study, the responses were collected by approaching respective students in universities. We collected the respondents profile including age, sex, education, subjects, institute, residence (Hostel / Home) and nationality of the students. The sample of invitation letter and questionnaire is attached.

Once we got the responses from the universities, we reported the results and analysed them by performing the quantitative analysis. Next section reports the quantitative analysis of the gathered results.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Quantitative Analysis

The data collected from the university respondents was first coded for computer processing. The Statistical Package for Social Sciences (SPSS) for Windows version 20.0 was used to analyse the data in form of correlations to identify mean differences on sense of coherence, well-being, stress and demographics among hostalized and day scholar students of AJK. The data is analyzed for the following hypothesis. We have divided the hypothesis on basis of two main categories as described below.

SOC with Well-Being:

H0: There is no difference of relation among SOC and Well-being between hostalized and day-scholars

H1: SOC is strongly related with Well-being among hostalized than among day-scholars

H2: SOC is weakly related with Well-being among hostalized than among day-scholars

SOC with Stress:

H0: There is no difference of relation among SOC and Stress between hostalized and day-scholars

H1: SOC is strongly related with Stress among hostalized than among day-scholars

H2: SOC is weakly related with Stress among hostalized than among day-scholars

The data analysis and results for the above mentioned hypothesis are described in Chapter 3.

RESULTS

Survey Conduction

A survey was conducted by following the guidelines of Kasunic (2005). The information regarding survey steps, objectives, selection of target audience to conduct the survey is reported in Chapter 3 (Survey method). Our research area specifically focused on university students of natural disastrous areas, so the target population of our study was the hostalized and day-scholars of the AJK universities, which are considered as highly affected natural disastrous area. The questionnaire was sent to the target population. A questionnaire was designed for; 1) To investigate the impact of sense of coherence on stress among the day scholars and the hostalized students of universities of natural disaster affected areas, 2) To investigate the impact of sense of coherence on well-being among the day scholars and the hostalized students of universities of natural disaster affected areas.

The questionnaire comprised of four main sections. Section I was designed to get the personal information of the respondent. Section II of the questionnaire comprised set of questions regarding SOC. Section III of the questionnaire comprised set of questions regarding stress. Section IV of the questionnaire comprised set of questions regarding Well-being. The questionnaire is attached in Appendix.

A total of 360 responses were received. 28 among the total responses were not usable due to incomplete answers or missing values, thus resulting in 332 complete responses that were used in our data analysis.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Descriptive Statistics of Respondents

The first part of the questionnaire was to investigate about respondent's general background and personal information. The respondents were asked about their gender, their permanent address type i.e. whether they belong from rural area or from urban areas, their corresponding address i.e. whether they are hostalized or day-scholars. Besides this the respondents were also asked about their marital status and their age. In this part of our result analysis we are specifically focusing on the information regarding their permanent and corresponding address with their genders, ages and marital status. The descriptive analysis of each one of them is described below.

Table 3 shows the distribution of respondent's based on their gender. We found that 40.6% of the respondents were male, in total 51.7% were female. We ignored 28 responses as they were incomplete and we mentioned them in missing values category.

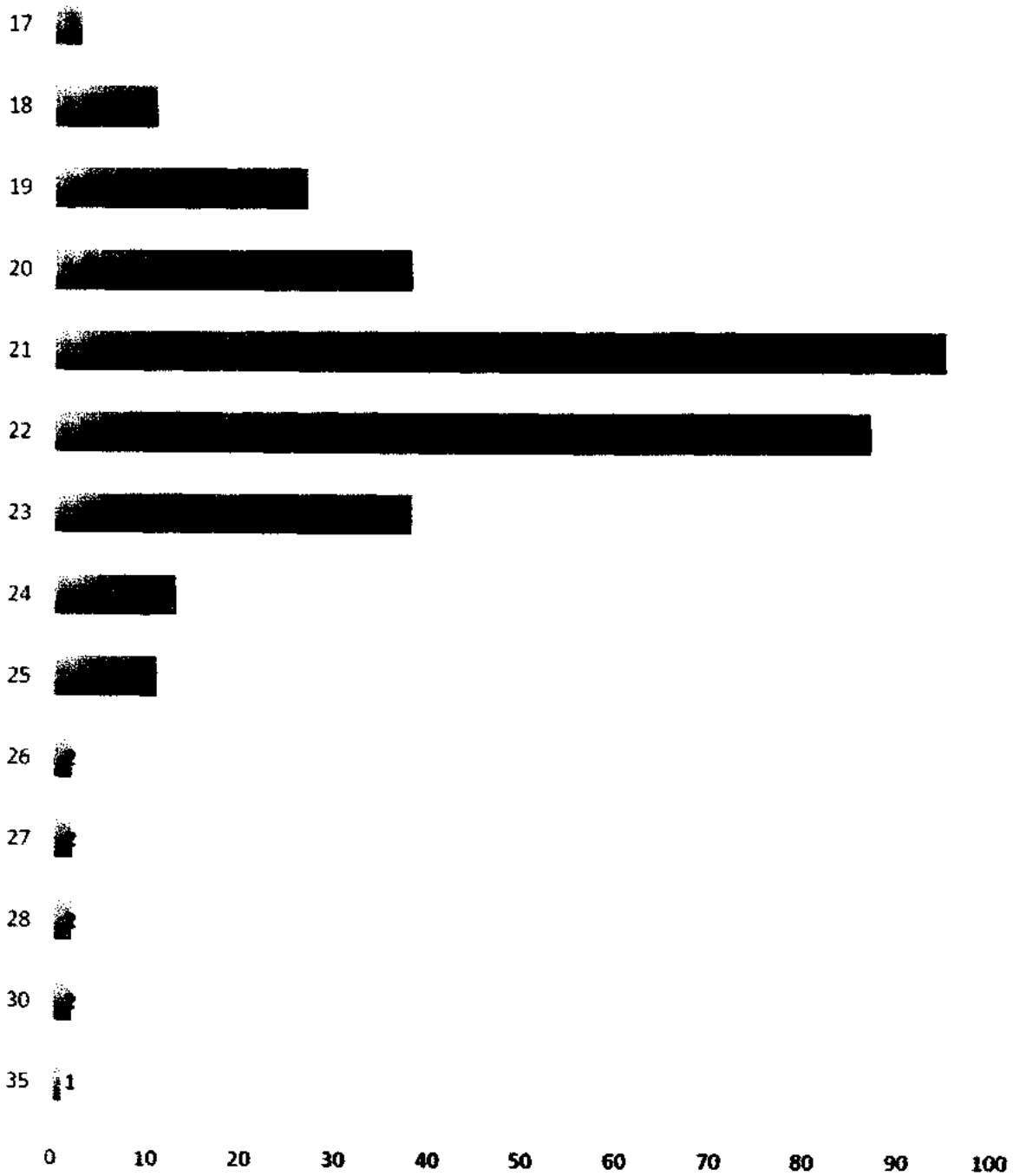
Table 3

Distribution of respondents, based upon their gender

	Gender	Frequency	Percent
Valid	Male	146	40.6
	Female	186	51.7
	Total	332	92.2
Missing	System	28	7.8
Total		360	100.0

Figure 1

Distribution of respondents, based upon their ages



SENSE OF COHERENCE ON STRESS AND WELL-BEING

The respondents were then asked about ages. Table 4 shows the dispersal of respondent's based on their ages. We found that 0.8% of the respondents were of 17 years age, 3.1% of the participants were of 18 years age, 7.5 % of the participants were of 19 years age, 10.6 % of the participants were of 20 years age, 26.4% of the participants were of 21 years age, 24.2% of the participants were of 22 years age. 10.6% of the participants were of 23 years age, 3.6% of the participants were of 24 years age, and 3.1% of the participants were of 25 years age.

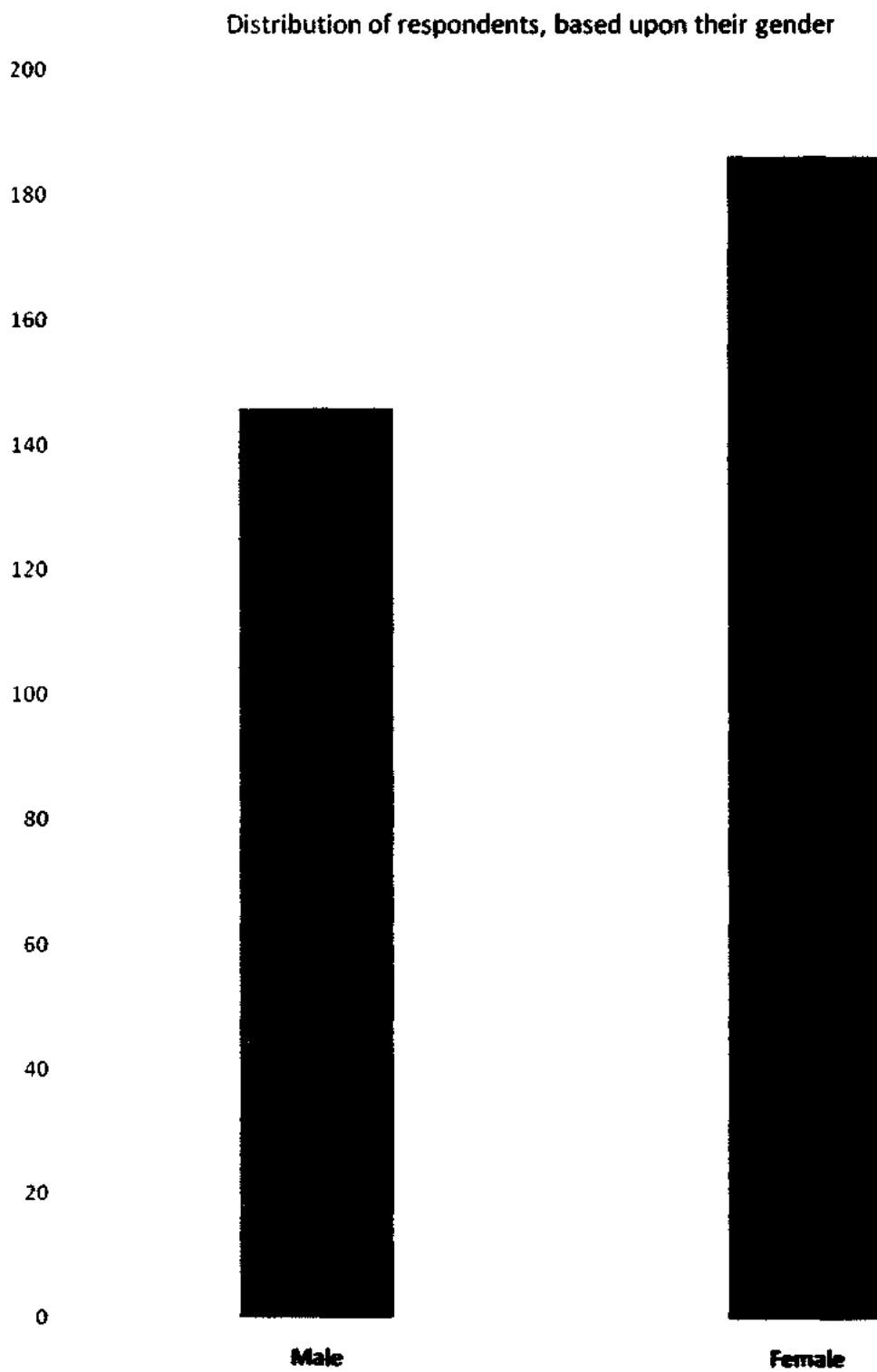
Table 4

Distribution of respondents, based upon their ages

	Ages	Frequency	Percent
	17	3	.8
	18	11	3.1
	19	27	7.5
	20	38	10.6
	21	95	26.4
	22	87	24.2
	23	38	10.6
Valid	24	13	3.6
	25	11	3.1
	26	2	.6
	27	2	.6
	28	2	.6
	30	2	.6
	35	1	.3
	Total	332	92.2
Missing	System	28	7.8
Total		360	100.0

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Figure 2



SENSE OF COHERENCE ON STRESS AND WELL-BEING

As shown in Table 4, we found that there were 0.6% of participants that were having ages of 26 to 30 each. Lastly we found that there were 0.3% of the participants who were of 35 years age. Hence from the statistical results we found that maximum participants were lying in the age group of 22 and 23.

The respondents were then asked about their marital status. Table 5 shows the distribution of respondents, based on their marital status. We found that 86.7% of the respondents were single, and 5.6% of the respondents were married. So based upon the statistical results we found that majority of the respondents were having marital status as single.

Table 5

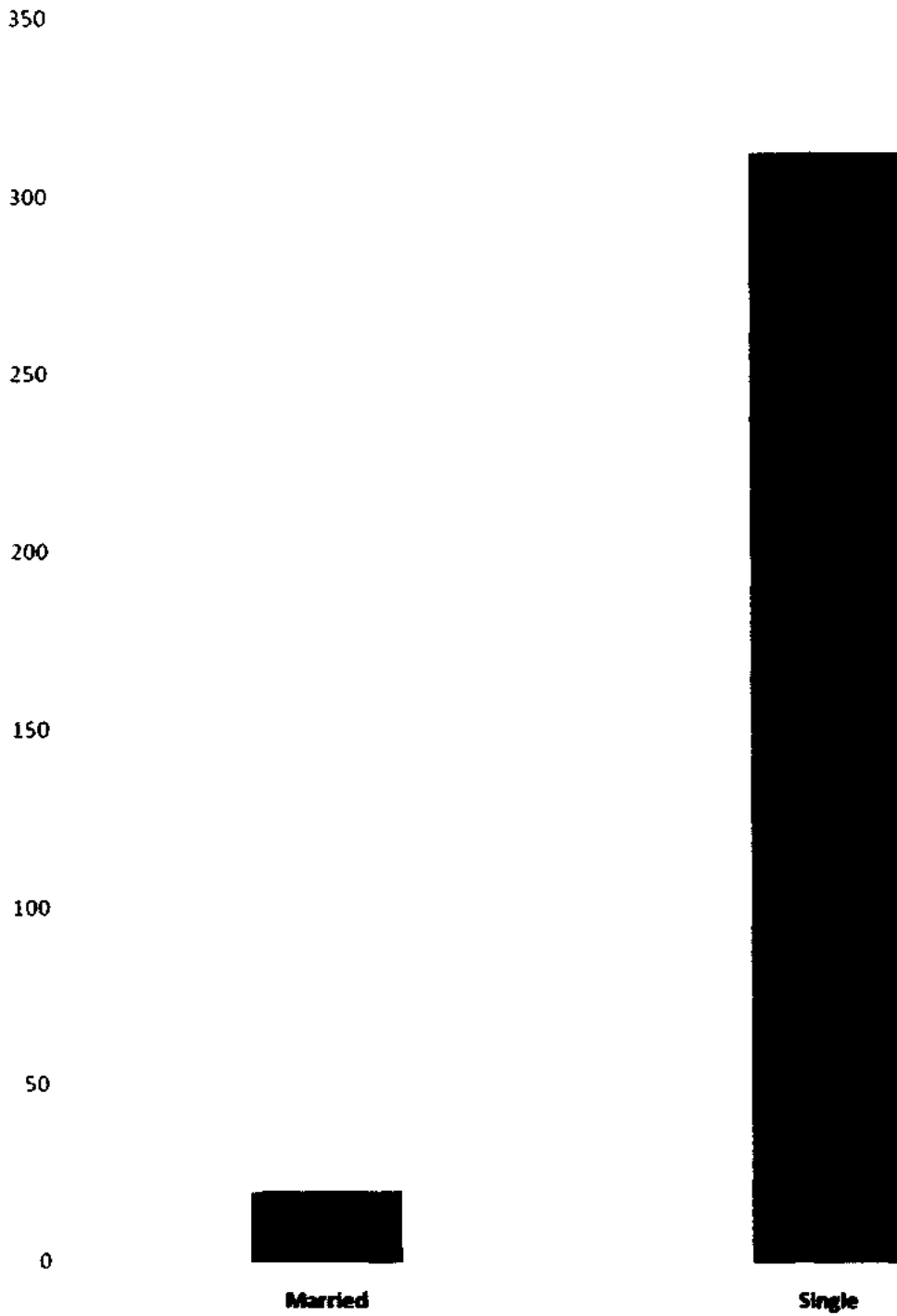
Distribution of respondents, based upon their marital status

	Marital status	Frequency	Percent
Valid	Single	312	86.7
	Married	20	5.6
	Total	332	92.2
Missing	System	28	7.8
Total		360	100.0

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Figure 3

Distribution of respondents, based upon their marital status



SENSE OF COHERENCE ON STRESS AND WELL-BEING

The respondents were then asked about their permanent address. We asked them about their permanent address as we wanted to know that whether they belong from rural areas or from urban areas. Table 6 shows the distribution of respondents, based on their permanent address. We found that 53.1% of the respondents belonged from rural areas, and 39.2% of the respondents belong from urban areas. So based upon the statistical results we found that bulk of the respondents belonged from rural areas.

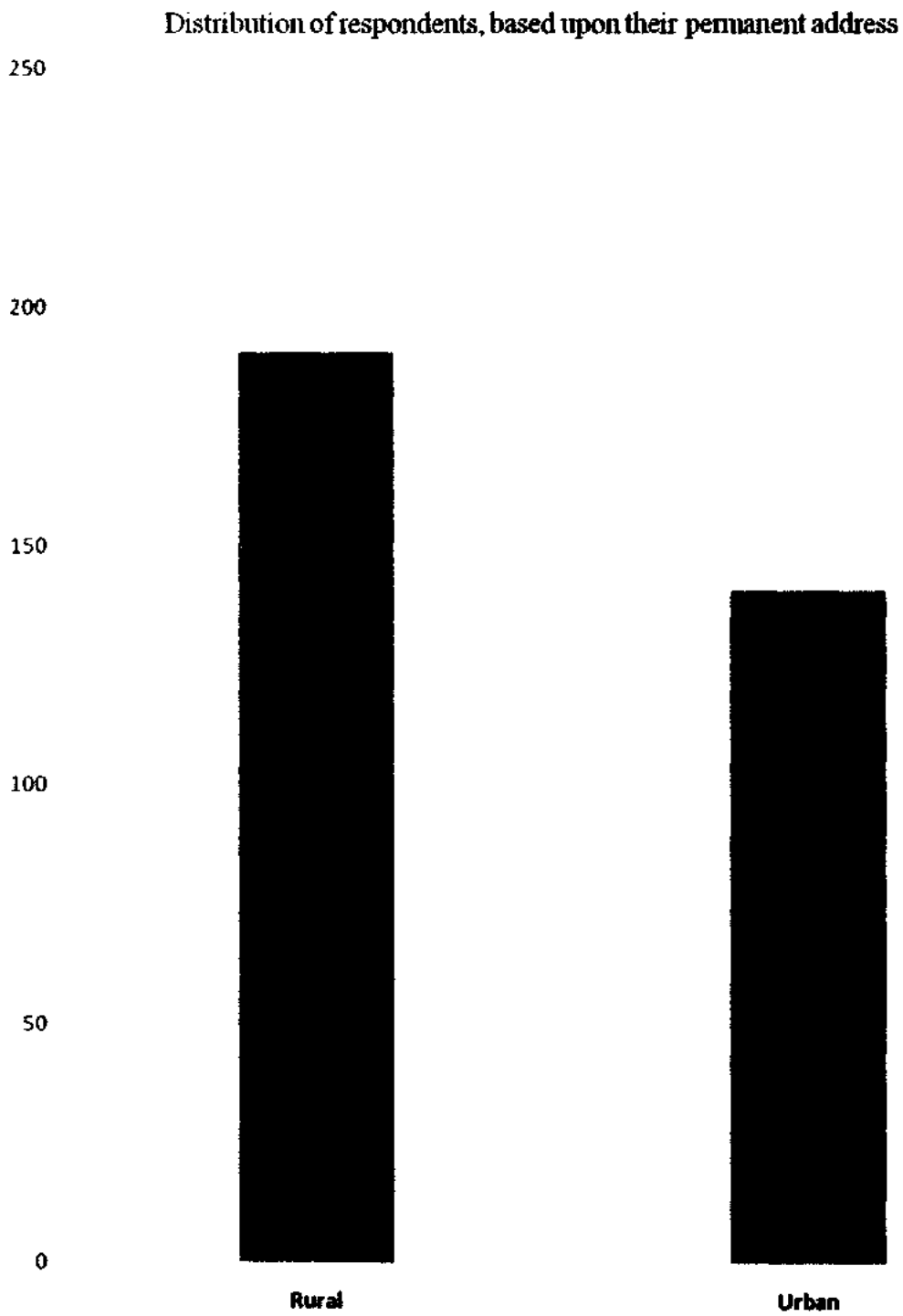
Table 6

Distribution of respondents, based upon their permanent address

Permanent address		Frequency	Percent
Valid	Rural	191	53.1
	Urban	141	39.2
	Total	332	92.2
Missing	System	28	7.8
Total		360	100.0

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Figure 4



SENSE OF COHERENCE ON STRESS AND WELL-BEING

The respondents were then asked about their present address. We asked them about their permanent address as we wanted to perform our data analysis among hostalized and day-scholars. Table 7 shows the distribution of respondents, based on their present address.

We found that 50.6% of the respondents were day-scholars, and 41.7% of the respondents were hostalized. So based upon the statistical results we found that although majority of the respondents were hostalized but the differences between their numbers is very less. So we can say that almost we had same number of hostalized and day-scholars for our data analysis.

Table 7

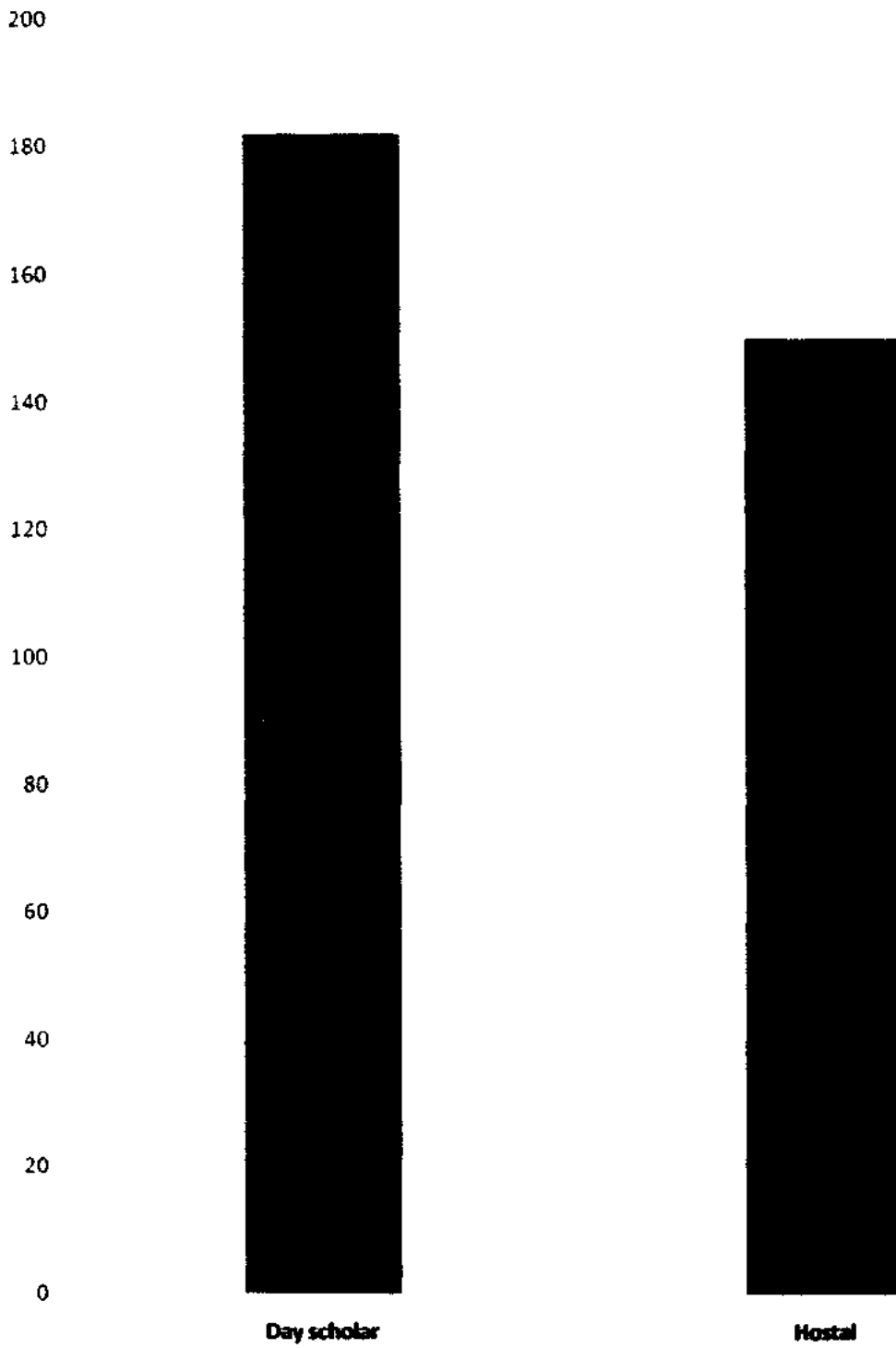
Distribution of respondents, based upon their present address

Present Address		Frequency	Percent
Valid	Day scholar	182	50.6
	Hostel	150	41.7
	Total	332	92.2
Missing	System	28	7.8
Total		360	100.0

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Figure 5

Distribution of respondents, based upon their present address



SENSE OF COHERENCE ON STRESS AND WELL-BEING

Results Analysis Related to Day-Scholars

This section reports the results for the relation of SOC with Wellbeing and Stress for day scholars. We performed the statistical analysis by conducting correlation and multiple regressions. The results are discussed in section below.

Correlation Analysis:

We compared the correlation between SOC with Stress and Wellbeing. SOC is our dependent variable, whereas Stress and Wellbeing are our independent variables also called predictors. The goal of conducting the correlation among these variables is to see if the change in Stress or Wellbeing can result in a change in SOC. The correlation coefficient can range between plus or minus one (± 1.0).

Table 8

Correlations among SOC with Stress and Wellbeing for day scholar

Variables	Correlation	r
Stress	Pearson Correlation	.071
	Sig. (2-tailed)	.340
	N	182
Wellbeing	Pearson Correlation	.210
	Sig. (2-tailed)	.004
	N	182

In our case as we can see in Table 8 that Pearson correlation (r) between SOC and Stress is 0.071 which is very low. We found that Sig. value (P value) is 0.340 which is greater than 0.05. As correlation is considered significant if p value < 0.05, so by considering the 'r' and 'p' values of our result, we conclude that there is no relation found between SOC and Stress for the day scholars. We can conclude that if level of Stress is changed among day scholars then it does not change their level of SOC.

Similarly as shown in Table 8 that Pearson correlation (r) between SOC and Wellbeing is 0.210 which is relatively high. We found that Sig. value (P value) is 0.004 which is less than

SENSE OF COHERENCE ON STRESS AND WELL-BEING

0.05. As correlation is considered significant if p value < 0.05 , so by considering the 'r' and 'p' values of our result, we conclude that there is a significant relation found between SOC and Wellbeing for the day scholars. We can conclude that if level of Wellbeing is changed among day scholars then it will change their level of SOC.

Multiple Regression Analysis

Multiple regression analysis is used when we want to calculate the value of a dependent variable based on the value of two or more independent variables. In our case the dependent variable is SOC and the independent variables are Stress and Wellbeing.

Table 9

Multiple Regression (ANOVA) among SOC with Stress and Wellbeing for day scholar

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.726	2	2.863	4.232	.016
Residual	121.106	179	.677		
Total	126.832	181			

The Analysis of Variance (ANOVA) is shown in Table 9, F value is considered statistically significant at a level of 0.05 or less, which proposes a linear relationship among the dependent and independent variables. In our case as shown in Table 9, we found that the F value is 4.232, which is far above the level of 0.05.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Table 10

Multiple Regression (coefficients) among SOC with Stress and Wellbeing for day scholar

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
(Constant)	3.174	.420		7.560	.000
Stress	.048	.113	.032	.425	.671
Wellbeing	.239	.087	.204	2.741	.007

As shown in Table 10 we can see that the 'B' value for Stress is 0.048. It interprets that every percentage point of Stress, add .048 of average SOC among day Scholars which is almost at negligible. Besides this the 'Sig' value of Stress is 0.671, which is far above than 0.05. Hence no significant relation is found between the SOC and Stress for day scholars.

Similarly, we can see in Table 10 that the 'B' value for Wellbeing is 0.239. It interprets that every percentage point of Wellbeing, add .239 of average SOC among day Scholars, which is showing some level of significant relation. Besides this the 'Sig' value of Wellbeing is 0.007, which is less than 0.05. Hence significant relation is found between the SOC and Wellbeing for day scholars.

Results Analysis Related to Hostalized

This section reports the results for the relation of SOC with Wellbeing and Stress for hostalized. We performed the statistical analysis by conducting correlation and multiple regressions. The results are discussed in section below.

Correlation Analysis:

We compared the correlation between SOC with Stress and Wellbeing. SOC is our dependent variable, whereas Stress and Wellbeing are our independent variables also called

SENSE OF COHERENCE ON STRESS AND WELL-BEING

predictors. The goal of conducting the correlation among these variables is to see if the change in Stress or Wellbeing can result in a change in SOC. The correlation coefficient can range between plus or minus one (± 1.0).

Table 11

Correlations among SOC with Stress and Wellbeing for hostalized

	Correlation	Sense of coherence (SOC)
Stress	Pearson Correlation	.081
	Sig. (2-tailed)	.323
	N	150
Wellbeing	Pearson Correlation	.274**
	Sig. (2-tailed)	.001
	N	150

As shown we can see in Table 11, that Pearson correlation (r) between SOC and Stress is 0.081 which is very low. We found that Sig. value (P value) is 0.323 which is greater than 0.05. As correlation is considered significant if p value < 0.05 , so by considering the ' r ' and ' p ' values of our result, we conclude that there is no relation found between SOC and Stress for the hostalized. We can conclude that if level of Stress is changed among hostalized then it does not change their level of SOC.

Similarly as shown in Table 11, that Pearson correlation (r) between SOC and Wellbeing is 0.274 which is relatively high. We found that Sig. value (P value) is 0.001 which is less than 0.05. As correlation is considered significant if p value < 0.05 , so by considering the ' r ' and ' p ' values of our result, we conclude that there is a significant relation found between SOC and Wellbeing for the hostalized. We can conclude that if level of Wellbeing is changed among hostalized then it will change their level of SOC.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Multiple Regression Analysis

Multiple regression analysis is used when we want to calculate the value of a dependent variable based on the value of two or more independent variables. In our case the dependent variable is SOC and the independent variables are Stress and Wellbeing.

Table 12

Multiple Regression (ANOVA) among SOC with Stress and Wellbeing for hospitalized

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.930	2	3.965	6.946	.001
Residual	83.914	147	.571		
Total	91.844	149			

The Analysis of Variance (ANOVA) is shown in Table 12, F value is considered statistically significant at a level of 0.05 or less, which proposes a linear relationship among the dependent and independent variables. In our case as shown in Table 12, we found that the F value is 6.946, which is far above the level of 0.05.

Table 13

Multiple Regression (coefficients) among SOC with Stress and Wellbeing for hospitalized

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
(Constant)	2.247	.523		4.297	.000
Stress	.144	.108	.106	1.343	.181
Wellbeing	.401	.112	.284	3.582	.000

As shown in Table 13, we can see that the 'B' value for Stress is 0.144. It interprets that for every percentage point of Stress, add .144 of average SOC among hospitalized, which is very

SENSE OF COHERENCE ON STRESS AND WELL-BEING

low. Besides this the Sig. value of Stress is 0.181, which is far above than 0.05. Hence no significant relation is found between the SOC and Stress for hostalized.

Similarly, we can see in Table 13 that the 'B' value for Wellbeing is 0.401. It interprets that for every percentage point of Wellbeing, add .401 of average SOC among hostalized, which is showing some level of significant relation. Besides this the Sig. value of Wellbeing is 0.000, which is less than 0.05. Hence significant relation is found between the SOC and Wellbeing for hostalized.

Based upon the discussion reported in results analysis related to day scholars and results analysis related to hostalized, we conclude that according to the results of the survey, there are no significant differences among the responses of the day scholars and hostalized. It is evident from the statistical results discussed and shown above in results analysis related to day scholars and results analysis related to hostalized that there is no relation between SOC and stress, whereas a strong relation is found between well-being and SOC. We found these results consistent with both day scholars and hostalized students. Hence for SOC relation with well-being we conclude that there is no difference of relation among SOC and Well-being between hostalized and day-scholars. Similarly for SOC relation with Stress, we conclude that there is no difference of relation among SOC and Stress between hostalized and day-scholars.

DISCUSSION

The present study is aim to find out the level of sense of coherence on well-being and stress among the day and hostalized university students of AJK from urban and rural areas. The study will also explore the difference and intensity of sense of coherence in the day and hostalized university students of AJK from urban and rural areas. The SOC scale scores and the well-being with stressful experiences in the university students determine ways to manage mental health among the day and hostalized university students of AJK from urban and rural areas.

The purpose of this research helps not only Social scientists, Sociologist, Anthropologist, Psychologist but also clinical psychologist who works on the treatment and rehabilitation plane. The finding of this research also helps Psychiatrists and Clinical psychologists to study the mental health related problems and also this research will be very supportive and affective for making the treatment management plane.

This research sought to answer following research question with associated research objectives.

Research Question: How sense of coherence can influence stress and well-being among university students of natural disaster affected areas?

Objective 1: To investigate the impact of sense of coherence on stress among the day scholars and Hostilities students of universities of natural disaster affected areas.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Objective 2: To investigate the impact of sense of coherence on well-being among the day scholars and students of universities of natural disaster affected areas.

The research question is achieved by conducting a survey. A survey through questionnaire was conducted among the university students of natural disaster affected areas of Pakistan. The questionnaire for sense of coherence is adopted from the work of "Antonovsky, 1987" (revised in 2007). The questionnaire for stress is adopted from the work of "Sheldon Cohen". The questionnaire for well-being was adopted from the work of "WEMWBS". Statistical analysis was performed using SPSS among sense of coherence, stress and well-being.

Fulfilment of Research Objectives and Contribution of the Study

The two research objectives of this research have been achieved.

This study provided statistical results showing the relation of SOC with Well-being and Stress for day-scholars of AJK universities, which are highly affected by the natural disasters (Objective 1). The results are reported in Chapter 4 (Results Analysis Related to Day Scholars).

Similarly with the help of statistical results this study has shown the relation of SOC with Stress and Wellbeing for hostalized of AJK universities, which are highly affected by the natural disasters (Objective 2). The results are reported in Chapter 3 (Results Analysis Related to Hostalized).

The prime contribution of this research is to assist not only the psychiatrists and practitioner psychologist, but also the academic people to help students to overcome the hardships in their lives such as economic, social and natural disasters including flood, land

SENSE OF COHERENCE ON STRESS AND WELL-BEING

sliding, earth quake etc. These aspects are high contributors to the stress and well-being. Sense of coherence (SOC) is an important dynamic to reduce stress and tension, and enables to consider and believe that they can meet demands. Thus this research contributes by investigating the impact of sense of coherence on stress and well-being. This study eventually could help the practitioner, and the academic people to diagnose the aspects related to SOC, Stress and Well-being and also to help to come out of it.

Limitations and Suggestions of the Research

This section reports the limitations of the study. We reviewed the existing literature that reports the relation or significance of SOC at individual level or with well-being and Stress. We tried to conduct a wide range of literature review but still it can be possible that we had missed some of the studies that report SOC or its relation with well-being and stress directly or indirectly.

The survey's target audience of our research was students who were studying in AJK universities. Due to our specific focus towards natural disastrous areas, we found that it was very difficult to visit them. As a result, we might have contributed towards the small sample size. The difficulty in finding the respondents lengthened the collection of data and the later processes.

Implications and Future Research

This research work acted as a foundation towards the relation and significance of sense of coherence on stress and well-being. For this study we have only focused to AJK universities as AJK is one of the highly affected areas from natural disasters. In future this research can be extended to other natural disastrous areas of Pakistan among the university students which can act as a comparative research among natural disastrous and non-natural disastrous areas.

Similar kind of research can be extended to other countries to conduct a comparative study among their university students for the level of difference or similarity on SOC with Well-

SENSE OF COHERENCE ON STRESS AND WELL-BEING

being and Stress. It will help researchers to investigate the natural disastrous areas with non-natural disastrous areas of other countries. It can also be extended to specifically focusing on the natural disastrous areas of other countries in order to conduct a comparative study among two or more natural disastrous areas students of various countries.

The major purpose of this research has been successfully achieved. The theoretical, methodological, analytical and empirical content of this research makes an invaluable contribution to the existing literature. This study not only overcomes the knowledge gap but also opens new opportunities for further studies. Finally it is hoped that the psychiatrists, practitioner psychologist, and the academic people can use this research as a point of reference for understanding, identifying, and overcoming the student's hardships in their lives such as economic, social and natural disasters including flood, land sliding, earth quake etc.

Conclusion

Life's satisfaction level enhances with the increase of social capital and psychological well-being. Comprehensibility, manageability and meaningful life play a pivotal role in the progress, development and prosperity of people as individuals and as a nation. When people are relaxed and are mentally healthy they obtain high level of confidence, self-control, have predictable behavior, are emotionally balanced and have a pleasant, optimistic, helpful attitude. These qualities lead towards a high quality of life. Previous research findings indicate that high scores on psychological personality test in neuroticism and being out of the way extravert lead to anti-social behavior. Stress can be defined as a pressure that is greater than resources i.e. physical, intellectual, emotional, spiritual and time. Stress is basically a silent killer. Adrenalin and cortisol badly damage a person's physical and emotional health. Anger is a menace that destroys ones personality, wisdom and morals. Cortisol greatly harms the immunity hence resistance against

SENSE OF COHERENCE ON STRESS AND WELL-BEING

diseases becomes low. Present research findings indicate that there is positive correlation between coherence and well-being, when coherence will increase similarly well-being will also enhance. On the other hand no relationship of stress with coherence and well-being is seen. The research findings support research hypothesis. However no-relationship among coherence and well-being with stress does not indicate that the students studying in the Mirpur University of Science and Technology, University of Poonch, University of Muzaffarabad are free from stress. Perhaps as Kashmiri students passed through a serious catastrophe in the form of an earthquake, therefore little stress in comparison may have low worth. The university students may also mostly belong to the middle class families hence their nurturing might be better if compared to the lower class. Generally, the middle class has good ethical values are socially well-groomed and financially well-off as compared to the lower class. More research investigation is required to further dig-out and explore other facet and aspects to fulfil the gap of knowledge.

REFERENCES

- Angner, E. (2008). The philosophical foundations of subjective measures of well-being. *Capabilities and Happiness, Capabilities and happiness: Oxford University Press.* 286-298.
- Antonovsky, A. (1987). *Unraveling the Mystery of Health. How People Manage Stress and Stay Well.* Jossey-Bass, San Francisco. *Canadian Journal on Aging / La Revue canadienne du vieillissement.* 7 (1): 77-79
- Antonovsky, A. (1979). *Health, Stress and Coping.* Jossey-Bass, San Francisco.
- Antonovsky, A. (1993). The structure and properties of the sense of coherence scale, *Social Science and Medicine.* 36:725-733.
- Binkowska-Bury, M., & Januszewicz, P. (2010). Sense of coherence and health-related behaviour among university students--a questionnaire survey. *Cent Eur J Public Health.* 18 (3): 145-150
- Beck, A.T. (1997). The past and future of cognitive therapy. *Journal of Psychotherapy Practice.* 6(4): 276-284.
- Camfield, L., Streuli, N., & Woodhead, M. (2010). Children's Well-being in Developing Countries: A Conceptual and Methodological Review. *European Journal of Development Research.* 22 (3), 398-416.
- Cannon, W. B. (1929). *Bodily Changes in Pain, Hunger, Fear and Rage.* 2nd ed. New York: Appleton.
- Clark, D. M. (1999). Anxiety disorders. Why they persist and how to treat them, *Journal of Psychotherapy Practice.* 37(1): 25-27.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior,* 24, 386-396.
- Diener, E. (2009). Subjective well-being. *The Science of Well-Being,* 11-58.
- Eriksson, M. (2007). Unravelling the mystery of salutogenesis. The evidence base of the salutogenic research as measured by Antonovsky's Sense of Coherence Scale. Folkhälsan Research Centre, *Health promotion research programme,* Turku.
- Eriksson, M. & Lindstrom, B. (2006). *J Epidemiol Community Health.* 2006 May; 60(5): 376-381

SENSE OF COHERENCE ON STRESS AND WELL-BEING

- Feldt, T., Metsäpelto, R., Kinnunen, U. & Pulkkinen, L. (2007). Sense of Coherence and Five-Factor Approach to Personality. Conceptual Relationships, *European Psychologist*. 12(3)165-172.
- Feldt, T. (1997). The role of sense of coherence in well-being at work: Analysis of main and moderator effects. *Work and Stress*. 11: 134-147.
- Gough, I., & McGregor, J. (2007). Wellbeing in developing countries: from theory to research: *Cambridge University Press*. New York.
- Heim, E. (1994). Salutogenesis versus pathogenesis: A new approach to an old wisdom, *Social Psychology of Health and Illness*. 124: 1267-1275.
- Helen, A., & Shifra, S. (1986). The development of a sense of coherence and its impact on responses to stress situations. *The Journal of Social Psychology*. 126 (2), 213-225.
- Horowitz, M. (1986). Stress-response syndromes: A review of posttraumatic and adjustment disorders. *Hospital and Community Psychiatry*. 37: 241-249.
- Kasunic, M. (2005). Designing an Effective Survey, *Software Engineering Measurement and Analysis*, Software Engineering Institute.
- Kinman, G. (2008). Managing stress in multiple sclerosis. *Health Psychology Update*., 17(3), 13-15.
- Lacey, J. L., Lacey, B. C. (1958). Verification and extension of the principle of autonomic response stereotyping. *Am. J. Psychol.* 71, 50-73.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. *Springer* New York.
- Llabre MM, Klein BR, Saab PG, McCalla JB, Schneiderman N. (1998). Classification of individual differences in cardiovascular responsivity. The contribution of reactor type controlling for race and gender. *Int. J. Behav. Med.* 5, 213-229.
- Lovibond, S. H., & Lovibond, P. F. (2002). *Manual for the Depression Anxiety and Stress scales (2nd ed.)*.
- McAdams, D. & Pals, J. (2006). A New Big Five. Fundamental Principles for an Integrative Science of Personality, *American Psychologist*, vol. 61, no. 3, pp. 204-217.
- Mlonzi, E.N. & Strümpfer, D.J.W. (1998). Antonovsky's sense of coherence scale and 16PF second-order factors, *Social Behaviour and Personality*, 26: 39-50.
- Mellem, L.S (2008). Sense of coherence as a mediator of stress among high school students in Tromsø, Norway. *Master Thesis in Psychology-Faculty of Social Sciences*, University of Tromsø.

SENSE OF COHERENCE ON STRESS AND WELL-BEING

- Nosheen, A., Riaz, N. M., & Batool, N. (2014). Cross-Cultural Study on Social Support, Sense of Coherence and Outcomes in Pakistan and Germany. *Pakistan Journal of Commerce and Social Sciences* 8 (2): 445- 452
- Rath, T. and Harter, J. (2010). Wellbeing - The Five Essential Elements. *New York: Gallup Press.*
- Ren, W.(2009). A research on the subject well-being of regional college students. *International Journal of Psychological Studies*, 1 (1): 51-54
- Rothmann, S. (2003). Burnout and engagement: A South African perspective, *South African Journal of Industrial Psychology*, 29(4): 16–25.
- Selye H. (1956). *The Stress of Life.* New York: McGraw-Hill.
- Smith, T. & Meyers, L. (1997). The Sense of Coherence: It's Relationship to Personality, Stress and Health Measures, *Journal of Social Behavior and Personality*, vol. 12, no. 2, pp. 513-526.
- Stewart-Brown, S., & Janmohamed, D. K. (2008). *Warwick-Edinburgh Mental Well-Being Scale:* University of Warwick and University of Edinburgh.
- Suraj, S. & Singh, A. (2011). Study of sense of coherence health promoting behavior in north Indian students. *Indian Journal of Medical Research*; 134(5): 645–652.
- Sutin, A.R., Costa, P.T., Jr, Wethington, E. & Eaton, W. (2010). Turning points and lessons learned: stressful life events and personality trait development across middle adulthood, *Psychology and Aging*, vol. 25, no. 3, pp. 524-533.
- Tsuno, Y. S., & Yamazaki, Y. (2012). Relationships among sense of coherence, resources, and mental health in urban and rural residents in Japan. *BMC Public Health* 12, 1107. doi:10.1186/1471-2458-12-1107
- Tsuno, S. Y., & Yamazaki, Y. (2007). A comparative study of Sense of Coherence (SOC) and related psychosocial factors among urban versus rural resident in japan. *Personality and individual differences*. 43 (3): 449-461
- Wells-Federman, C.L., Stuart-Shor, E. & Webster, A. (2001). Cognitive therapy: Applications for health promotion, disease prevention, and disease management, *Journal of Clinical Psychology*, 36: 93–114.
- Yeresyan, I., & Lohaus, A. (2014). Stress and wellbeing among Turkish and German adolescents living in rural and urban areas. *Rural and Remote Health* 14: 2695.

APPENDICES

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Consent Form

Department of psychology, International Islamic University Islamabad is focuses on the study, research and work on the development of human mind and problem. This research is to study "**Impact of Sense of Coherence on Stress and Well-Being among University Students**". For this purpose we are collecting data from the AJK students. You are required to fill the form with complete honesty. All the information will be kept confidential and will not be used other than academic purpose.

I _____ hereby agree with the above statement and giving my information with full consent so that it can be used for the academic purpose.

Signature of Participants

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Demographic Data

Name (optional): _____

Gender: 1.Male 2.Female

Age: _____

Birth Order: _____

Marital Status: 1.Single 2.Married

Family income (per month): _____

Class: 1.BS/MSc 2.MS/MPhil 3. PhD

Subject: _____

Name of university (optional): _____

Permanent Residence: 1. Rural 2. Urban

Present Residence: 1. Day scholar 2. Hostel

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Appendix CSENSE OF COHERENCE:

Instructions: Here is a series of questions relating to various aspects of your lives. Each question has seven possible answers. Please mark the number, which expresses your answer, with number 1 and 7 being the extreme answers. If the words under 1 are right for you, circle 1: if the words under 7 are right for you, circle 7. If you feel differently, circle the number which best expresses your feeling. Please give only one answer to each question.

1. Do you have feeling that you don't really care about what goes on around you?						
1	2	3	4	5	6	7
Very Seldom						Very often
2. Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well?						
1	2	3	4	5	6	7
never happened						always happened
3. Has it happened that people whom you counted on disappointed you?						
1	2	3	4	5	6	7
never happened						always happened
4. Until now your life has had:						
1	2	3	4	5	6	7
no clear goals or purpose at all						very clear goals and purpose
5. Do you have the feeling that you're being treated unfairly?						
1	2	3	4	5	6	7
very often						very seldom or never
6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?						
1	2	3	4	5	6	7
very often						very seldom or never
7. Doing the thing you do every day is:						
1	2	3	4	5	6	7
a source of deep pleasure and satisfaction						a source of pain and boredom
8. Do you have very mixed-up feelings and ideas?						
1	2	3	4	5	6	7
very often						very seldom or never

SENSE OF COHERENCE ON STRESS AND WELL-BEING

9. Does it happen that you have feelings inside you would rather not feel?						
1	2	3	4	5	6	7
very often						very seldom or never
10. Many people – even those with a strong character – sometimes feel like sad sacks (losers) in certain situations. How often have you felt this way in the past?						
1	2	3	4	5	6	7
Never						very often
11. When something happened, have you generally found that:						
1	2	3	4	5	6	7
you over-estimated or under-estimated its importance						you saw things in the right proportion
12. How often do you have the feeling that there's little meaning in the things you do in your daily life?						
1	2	3	4	5	6	7
very often						very seldom or never
13. How often do you have feelings that you're not sure you can keep under control?						
1	2	3	4	5	6	7
very often						very seldom

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Appendix DSTREE SCALE:

Instructions: The following questions ask about your feelings and thoughts during the past month. In each question, you will be asked how often you felt or thought a certain way. Although some of the questions are similar, there are small differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the exact number of times you felt a particular way, but tell me the answer that in general seems the best. (Read all answer choices each time)

	Never	Almost Never	Sometimes	Fairly Often	Very Often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problem?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritation in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

SENSE OF COHERENCE ON STRESS AND WELL-BEING

Appendix EWELL-BEING SCALE:

Instructions: Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks

Sr	Statements	None of the time	Rarely	Some of the time	Often	All of the time
1.	I've been feeling optimistic about the future	1	2	3	4	5
2.	I've been feeling useful	1	2	3	4	5
3.	I've been feeling relaxed	1	2	3	4	5
4.	I've been feeling interested in other people	1	2	3	4	5
5.	I've had energy to spare	1	2	3	4	5
6.	I've been dealing with problems well	1	2	3	4	5
7.	I've been thinking clearly	1	2	3	4	5
8.	I've been feeling good about myself	1	2	3	4	5
9.	I've been feeling close to other people	1	2	3	4	5
10.	I've been feeling confident	1	2	3	4	5
11.	I've been able to make up my own mind about things	1	2	3	4	5
12.	I've been feeling loved	1	2	3	4	5
13.	I've been interested in new things	1	2	3	4	5
14.	I've been feeling cheerful	1	2	3	4	5