

Predictors of Mental Well-being among Adults in Pakistan and Qatar: Cross-Cultural Study on Salutogenesis Model of Medical Health

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Abstract

Background: The study has investigated a concept of *salutogenesis* model of medical health named sense of coherence in relation to well-being of adults from a cross-cultural perspective. Besides the independent effect of sense of coherence on the well-being, its effect was combined in a moderation model to investigate its interactive effect on well-being.

Objectives: The study intended to examine the moderating role of extroversion and neuroticism in the relationship between sense of coherence and well-being in Pakistan and Qatar. The research also investigated mean differences in the level of sense of coherence in two cultures including Pakistan and Qatar. More clearly interaction effect of sense of coherence and personality types was investigated along with a cross-cultural comparison on sense of coherence.

Subjects and Methods: Sense of Coherence Scale, Short Warwick-Edinburgh Mental Well-Being and NEO-Five Factors Inventory were administered on 250 participants from Pakistan and Qatar. The study completed in one year duration from 2015 to 2016.

Results: Moderation analysis revealed that personality types moderated the relationship between sense of coherence and well-being among adult participants. Results of t-test found that adults from Qatar exhibited higher level of sense of coherence as compared to their Pakistani counterparts.

Conclusion: The study has investigated a medical health model of salutogenesis from cross-cultural perspective. Finding confirmed the interactive effect of sense of coherence and personality types on the well-being of adults. Significant differences in the level of sense of coherence in two cultures contain cross-cultural importance from medical perspective.

Key words: Salutogenesis, sense of coherence, well-being, neuroticism, extroversion, adults.

Introduction

The phenomenon of sense of coherence is brainchild of medical researcher Aaron Antonovsky¹ to explain the reason behind individuals' illness while facing stressful events i.e. the salutogenic model of health. Concept of *salutogenesis* was derivate from Greek (Salus=

health) and (Genesis= origin), which encompasses the search for health instead of finding the reasons of illness. Sense of coherence (SOC) is defined as the individuals' level of confidence regarding the predictability of the environment that all matters will be settled according to their expectations. More specifically, the combination of control and optimism is sense of coherence. In stressful scenarios, it is an individual's positive perceptions and capacity of coping and recovering. Such individuals perceived their life meaningful, manageable, structured and coherent. These assets are personally utilized by individuals with a grater inner self-trust reflected in their thinking, acting and being. Three facets of sense of coherence are comprehensibility (considering environment reasonable, structured and predictable), manageability (confidence in having adequate resources to meet the demands of their environment) and meaningfulness (positive perception of these demands for having some challenge worthy of engagement and investment).²

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Authors Contribution

SM & MNR conceptualized the project and performed the all tasks i.e. data collection, literature search, statistical analysis and write up collectively.

It affects health in general and well-being of the society in particular.³

Personality factors like extroversion and neuroticism has clear association with sense of coherence⁴ and it positive consequences like well-being and depression.^{5,6} Besides the direct effect, personality types also effects health outcome in interaction with sense of coherence-although from emic perspective (within a single culture) only. The emic research confirmed that extroversion has an additive effect between sense of coherence and well-being relationship. Similarly, neuroticism has moderating effect between sense of coherence and depression.⁷ However, there is need to extend the validity of these insights on the same lines of inquiry from etic perspective (cross-cultural perspective). Further research⁸ suggested that sense of coherence is strongly related to health, especially mental health. The present study focused to examine the role of sense of coherence as possible antecedent of well-being among adults along with the moderating role of personality types. Present investigation is a cross-cultural study based on a medical health model. Adults from two collectivist cultures i.e. Qatar and Pakistan are under consideration. It is the first ever research on sense of coherence in Qatar (see Figure-1). Prior research on sense of coherence solely focused either on a single culture⁹ or the comparison of individualist (Germany) and collectivist culture (Pakistan).¹⁰ However, the present study is an attempt to compare two collectivist cultures in a single investigation.



Figure 1: Empirical work on sense of coherence across the globe.

Subjects and Methods

The present study anticipated that personality types are likely to moderate between sense of coherence and well-being relationship in adults from cross-cultures including Pakistan and Qatar.

Purposive sample of this cross-sectional study consisted of adults (N=250) both from Pakistan (n=150, 60%) and Qatar (n=100, 40%) with age range of 22 to 65 (M=39.40, SD=10.49). Data was collected from the professionals working in different organizations of both countries. After taking permission from concerned authorities, participants signed the informed consent prior to the administration of questionnaires. More women (n=128, 51.2%) participated in the study compared to men (n=122, 48.8%). Due to unavailability of the funding sources, the researchers personally afforded the expenses of the research.

Three self-administered questionnaires were administered in both cultures to get initial information about the variables. Sense of Coherence Scale (SOC) consisted of 13 items and 6-point rating scale.¹¹ High-low scores depict high-low level of SOC respectively. The SOC is used in the cross-cultural perspective and it is found reliable and valid across-cultures.¹² Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWS), consisting of 7 items measured on 5-point Likert scale.¹³ High scores indicate high level of well-being and vice versa. The SWEMWS is used in the cross-cultural perspective and it is found reliable and valid across-cultures.¹⁴ NEO-Five Factors Inventory measured personality types.¹⁵ Neuroticism subscale from NEO-FFI consisted of 12 items on 5-point rating scale. High scores indicate high level of neuroticism and vice versa. Extraversion subscale from NEO-FFI consisted of 12 items on 5-point rating scale. High scores indicate high level of extraversion and vice versa. The NEO-FFI is used in the cross-cultural perspective and it is found reliable and valid across-cultures. The prior use of all these scales in Middle East has confirmed its convergent and divergent validity and appropriate alpha reliability,^{14,16} thus this scale was used in Qatar (situated in Middle East) with more confidence. Furthermore, in both cultures, these scales are correlated with variables for construct validation and alpha reliabilities are also computed in both cultures separately (Table). Thus the cross-cultural sensitivities are taken into consideration.

In the first step, authorities were approached for permission about data collection from different organization in Pakistan and Qatar. The principal investigator has family origin in Qatar which helped in data collection from different institutions of Doha. The principal investigator personally collected data from the organizations of Doha. Data from Pakistan was collected from Sargodha by the researchers. Data was collected during the working hours.

Table: Descriptive statistics and correlation for adults from Pakistan and Qatar.

Variables	M	SD	Range		Skewness	1	2	3	4
			Potential	Actual					
Pakistan (n = 150)									
1. Sense of coherence	53.76	11.01	13-91	21-75	-.75	(.73)	.32**	.20	.20*
2. Well-being	25.02	4.43	7-35	12-35	-.52		(.72)	-.21**	.30**
3. Neuroticism	35.90	5.74	12-60	15-52	-.32			(.67)	.08
4. Extraversion	38.90	3.90	12-60	30-49	.29				(.22)
Qatar (n = 100)									
1. Sense of coherence	59.42	7.76	13-91	39-79	.16	(.60)	.29**	-.23*	.28**
2. Well-being	25.23	4.69	7-35	12-33	-.68		(.79)	-.30**	.32**
3. Neuroticism	33.38	5.30	12-60	21-44	-.27			(.54)	-.44**
4. Extraversion	39.72	5.56	12-60	27-57	.52				(.59)
Overall Sample (n = 250)									
1. Sense of coherence	56.02	10.20	13-91	21-79	-.76	(.71)	.30**	.00	.23**
2. Well-being	25.10	4.53	7-35	12-35	-.58		(.75)	.00	.31**
3. Neuroticism	34.89	5.69	12-60	19-52	-.23			(.63)	-.17**
4. Extraversion	39.22	4.64	12-60	27-57	.55				(.43)

Descriptive statistical analysis shed light on the important aspects of data. The values of the skewness analyzed normality of the data in terms of symmetry. Pearson correlation examined degree of association among variables. Independent sample t-test revealed mean differences in the constructs under investigation. Finally, moderation analysis is carried out with the help of hierarchical regression. Mod-Graph show that personality factors moderated between SOC and adults' mental well-being.

Results

In Pakistan, sense of coherence has significant positive correlation with well-being ($p < 0.01$) and extraversion ($p < 0.01$). Well-being has negative correlation with neuroticism ($p < 0.01$) whereas positive correlation with extraversion ($p < 0.01$). In Qatar, SOC has positive correlation with extraversion ($p < 0.01$). Well-being has negative correlation with neuroticism ($p < 0.01$) whereas positive correlation with extraversion ($p < 0.01$). Neuroticism is negatively associated with extraversion ($p < 0.01$). In the overall sample, SOC has positive correlation with well-being ($p < 0.01$) and extraversion ($p < 0.01$). Well-being has positive correlation with extraversion ($p < 0.01$). Neuroticism is negatively correlated with extraversion ($p < 0.01$). Results of independent sample t-test with participants from Pakistan and Qatar indicates mean differences on sense of coherence with $t(248) = 4.45$ ($p < 0.001$), and extraversion with $t(248) = 3.50$ ($p < 0.001$). Remaining differences were non-significant. Adults from Qatar significantly scored higher on sense of coherence as compared to Pakistan. Adults from Pakistan significantly scored higher on extraversion as compared to Qatar. Figure-2 shows mean differences on targeted variables.

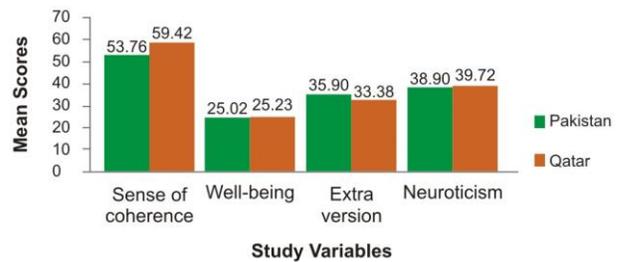


Figure 2: Mean differences on study variables among adults from Pakistan and Qatar.

Discussion

In the recent past years sense of coherence has been widely researched. It is described as an active and dynamic general health resource.¹⁷ In addition to psychological element, sociological element is also an important integral part of SOC, given that individual' efforts for coping is not restricted to the person disturbed, but also involves interaction between the individual and his society, instead human resources stem from the living context. Antonovsky contended that it was an interdisciplinary advance bringing integration between different perspectives and realization of how they could be connected.⁸ According to Antonovsky¹¹ the sense of coherence serves as a perceptual filter. In his view, an individual can appraise stressors as negative, neutral, or productive. Individuals with high sense of coherence invariably believe that all will work out well.¹

It was anticipated that extraversion will moderate between SOC and well-being. Hypothesis was supported by the findings and according to researches extraversion has an additive effect on the relationship between sense of coherence and

well-being. Similarly it was anticipated that neuroticism will moderate between SOC and depression. The finding supported the hypothesis with previous researches indicating that neuroticism has moderating effect on the association between SOC and depression.⁷ Sense of coherence is directly connected with personality. Five-Factor Model of Personality (FFM) is widely accepted approach, according to which in emotional and social life there are individual differences which fall into five broad categories resulting from factor analysis^{18,19} out of which two are used in this investigation which included extroversion and neuroticism. Researchers^{20,21} found the conceptual relationship between sense of coherence and FFM. They reported a strong negative association between a high SOC and neuroticism and a modest positive association between SOC and extraversion, thus concluding that sense of coherence and personality types are closely related constructs which interplay to enhance well-being. The study shed light on the fact that the sense of coherence contributed to enhance mental well-being across culture²² both independently and in interaction with personality. This indicate that role of sense of coherence in mental well-being is the matter of human nature as in both cultures these are associated. The findings also broaden the scope of sense of coherence which did not remain limited to cultural boundaries. Thus salutogenic model of medical health can be utilized to improve the mental well-being of adults. Through this investigation, the validity and applicability of this model of medical sociology is confirmed.

Furthermore, adults from Qatar exhibited more SOC as compared to Pakistan. It is important to note that in a similar cross-cultural study with adults from Saudi Arabia and Pakistan, adults from Pakistan exhibited better mental health as compared to Saudi Arabia. However, non-significant differences were reported between Pakistan and Saudi Arabia. Both Saudi Arabia and Qatar share many similarities in geographical, cultural and societal aspects. These findings suggest more comprehensive investigations in the future research.¹⁴ It is important to know that two collectivist cultures differ at the level of SOC, contrary to individualist-collectivist cultural differences. These insights show sensitivity of cross-cultural differences. In future research if the individualist-individualist differences are investigated, SOC is expected to significantly differ.

For the long time, sense of coherence has been investigated in different cultures with different correlates. However, in the past decade, the focus of research on sense of coherence was shifted from

emic (within a culture) to etic perspective (cross-cultures). Although it was a research initiative on sense of coherence on this topic in Qatar, it was also based on a cross-cultural comparison between Pakistan and Qatar, in terms of the examination of association of sense of coherence with related constructs and the investigation of level of sense of coherence in both cultures. The study added new knowledge on the scientific understanding of cross-cultural differences on sense of coherence as resulted reported significant differences in spite of the fact that both are collectivist cultures. Moreover, the study confirmed that beyond cultural differences, human nature (i.e. personality) has importance role in enhancing the well-being of adults by effacing in interaction with sense of coherence. The study also extended the cross-cultural validity of the Salutogenic Model of Medical Health which reveals that by promoting sense of coherence, well-being can be enhanced.

The findings confirmed the role of sense of coherence in well-being in conjunction with personality types including extroversion and neuroticism. Findings have supported the moderation and comparative hypothesis. Firstly in overall data, the collective conclusion confirmed that personality as human nature exhibited an additive effect on the positive association of sense of coherence with a superlative concept of positive psychology regarded as mental well-being, irrespective of the cultural differences. Secondly, the quest for cultural differences on sense of coherence rested in the addition of existing body of empirical knowledge as adults of Pakistan and Qatar differed in the level of sense of coherence although both cultures share collectivism, religion and many social aspects.

Conflict of interest: None declared.

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