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Keywords
mixed research, faith, sense of coherence, religion, muslims, content analysis, multiple regression, salutogenesis, salutogenic model

SPIRITUALITY AND SENSE OF COHERENCE IN MUSLIM STUDENTS: A MIXED METHODS STUDY

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Abstract

The purpose of this mixed methods research was to measure sense of coherence of convenient sample of college Muslim students in Tennessee and to investigate from their perspective, meaning attached to faith as a source of strength, motivation and courage. This research was framed in salutogenic model (sense of coherence). Two questions guided the research,1) to what degree do Muslim students indicate, through their education, age groups, place of birth, gender and marital status a sense of coherence? 2) Why and how is their faith important to them-when dealing with stressors- as sources of strength, meaning and courage to cope with challenges? In multiple regression analysis, sense of coherence (SOC) related to the 5 predictors together (R^2 = .279, F (5, 47) =3.64, $p < .05$). Except for gender, all other predictors were not related to SOC individually. When the variables measured are consider together as predictors, the results indicated salutogenic model responded positively to this diverse group of students with similar faith but different backgrounds. Qualitative content data analysis revealed five themes that related how religious practices were important to the participants in managing and comprehending events in their lives. The results suggest, educators should not dismiss religious worldview of students, for their faith works as a regulator when these students experience stress.

Keywords: mixed research, faith, sense of coherence, religion, Muslims, content analysis, multiple regression, salutogenesis, salutogenic model, spirituality.

Introduction

Previous studies on Muslim migrant students, with similar faith and shared characteristics as the participants in this research, revealed that some students were more successful in pursuing education and life events despite school and community challenges (Ali, Zengaro & Zengaro, 2012; Zengaro, Ali & Zengaro, 2016). Zengaro et.al. (2016) observed the high schools where the Somali and Kurdish participants attended did not meet educational and social needs of these students; however, some succeeded despite those obstacles. In a case study of Somali students, Ali et.al. (2012) found that notwithstanding challenges as new immigrants, the participants graduated from high school and actively participated in their community's activities as young leaders and mentors. In these previous studies, what initiated the difference in educational achievements and personal aspiration among the participants with similar characteristics was not clear although religion and community support played a role in their divergent experiences.

Background of Sense of Coherence Research

Antonovsky (1987) defined SOC as a model to observe the world and "one's life in it." The model, as Antonovsky espoused it, contains "global orientation" that determines how a person predicts the internal and external environments affecting him or her. To understand SOC,

therefore, one has to comprehend Antonovsky's claim that it is a perception that is both "cognitive and affective." Further knowledge of the model comes from his explanation of generalized resistance resources (GRRs).

Antonovsky (1987), motivated by the work of Kohn (1973, 1976) on mental illness and its relationship to weak orientation because of genetic, economic or social issues, argued coping mechanisms arise from GRRs. The GRRs counter tensions from both internal and external environments. Antonovsky (1987) claimed GRRs are acquired from childhood to adulthood and assist individuals or communities or groups through their experiences to cope with stressors. The GRRs, Antonovsky argued, come from 1) material things such as money, 2) knowledge and intelligence, 3) ego identity, 4) coping strategies, 5) social support, 6) commitment, and cohesion and control, 7) cultural stability 8) religion, art, and philosophy, 9) preventive health orientation, 10) genetic construction, and 11) the individual's state of mind and body (pp.184-195). From culture, Antonovsky said, the resources come from a commitment to institutions, ties between individuals and entire communities. However, any change can cause a major adjustment to one's SOC even if all of these GRRs are present. For instance, Antonovsky stated changes in marriage, occupation, and place of birth or residence can alter SOC. He also wrote there are specific resistance resources that are employed with GRRs to manage stressors. He claimed that by utilizing these resources, if available, tension may be manageable.

The GRRs are acquired through life experiences the individual encounters. In explaining the ability of the model to measurable SOC, Antonovsky (1987) affirmed the degree life provides GRRs is critical in how people achieve a strong SOC. However, Antonovsky said there can be "a fake sense of coherence" where the person is unaware of his or her environment yet scores high in the model. On the extreme, there can be an accurate strong SOC revealed in the continuum, although the person is "insensitive, unpleasant, inconsiderate and exploitative" (p.172). The GRRs become stable at age 30 and continue to increase with age (Antonovsky, 1987). Antonovsky stated that during this period, as one matures, high scores in the continuum indicate steady or balanced life experiences and high motivation to participate in one's own decision making in life events. The lower the scores in a continuum, the lower the balanced experiences one has (Antonovsky, 1987; Idan, Eriksson & Al-Yagon, 2017).

Antonovsky created SOC from salutogenesis, a term he referred to as a "social science idea," as he turned away from pathologenesis in the late 1960s (Antonovsky, 1996; Vinje, Langeland & Bull, 2017). The central question of salutogenesis was "What makes people healthy?" Antonovsky (1987, 1996) criticized the pathogenic or medical paradigm, in both practice and theory, for classifying people as "being in disease or healthy." Summarizing the salutogenic model, Antonovsky (1987) underscored, "The concern should be ease/dis-ease continuum rather than health-disease dichotomy" (p.56).

SOC is a multidimensional model in its measurement. Antonovsky (1987) wrote that because of its multi-dimensional characteristics, SOC is a strong model with potential to assist researchers in understanding any kind of social research data. Further, Antonovsky stated, referring to the model, that a phenomenon is better comprehended when observed in a multidimensional way. This claim is associated with Guttman's (1959) facet theory, a theory Antonovsky confirmed influenced his work.

The original salutogenic model had sub-dimensions, such as manageability (behavioral dimensions), comprehensibility (cognitive dimension), and meaning (motivation dimension). Some researchers, however, like Eriksson and Mittelmark (2017), suggested that Antonovsky intended the model to be used holistically "as a single total score" (p. 97). However, the scale has

been dichotomized by researchers, although Antonovsky (1987) said it assumes normal distribution rather than bimodal distribution. Observing data from a single score for current research proved operational and practical since the model predicted a continuum of a semantic scale of seven levels with three constructs (Antonovsky 1987; Eriksson & Mittelmark, 2017).

In our review of the literature, a wide range of empirical studies utilized SOC. Research using SOC and quality of life in elderly populations seems to have had its groundbreaking decades ago (Forbes, 2001; Lewis, 1997; Rennemark, 1997; Sarvimaki & Ojala, 1994; Tishelman, Taube, & Sachs, 1991). The outcomes then revealed that a strong SOC can be a protective factor for the elderly.

Recently, SOC has been used extensively in cross-cultural studies. For example, in a Chinese study on women with cervical cancer, Ding, Bao, Xu, Hu, and Hallberg (2012) did not find any significant results. Ding et al. concluded that SOC did not have meaning for the Chinese participants due to the underpinning factors of the background and philosophy behind the model. Another study on the cultural responsiveness of SOC was one on job instability among youth in Italy (Ciairano, Rabaglietti, Roggero, & Callari, 2010). The results showed reality is less meaningful, controllable or manageable in youth with insecure jobs. A similar study on cultural perspective illustrated fascinating outcomes from a cross-section sample of Polish adults, youth, and elderly people to understand "post-faith phenomena." In this study of Polish participants, the results indicated SOC's "religiosity functions" are strong in old women and middle-aged men (Zarzycka & Rydz, 2014). All these studies indicate and confirm the current claim that SOC has the capacity to explain social and health phenomena from salutogenesis framework (Mittelmark & Bauer, 2017).

Theoretical framework

This research was framed through the theoretical framework of SOC. The scale emerged from salutogenesis, a social science idea, that focused on health-promoting factors rather than disease emphasizing factors (Eriksson & Lindstrom, 2005; Feldt, Leskinen, & Kinnunen, 2005). Salutogenesis originated from Antonovsky's work with women in 1976 on how they coped with pain. Antonovsky (1987) observed that coping strategies involve among other things, "rationality, flexibility and far-sightedness" (p.128). These constructs indicate how one evaluates threats and anticipates unforeseen events.

Another way of perceiving the model comes from the "global orientation" of a person's environment which is summarized in how the person interprets life in its three constructs: comprehensibility, manageability, and meaning (Antonovsky, 1987, 1996; Mittelmark & Bauer, 2017). These constructs are important and form the foundation for our research. The concepts, as Antonovsky (1987) wrote, "ask about that person's location in the continuum in the past and in the future" (p.73). This means using the salutogenic model (SOC), a person can gauge his or her orientation from cognitive and affective domains and via the community, class and other social interactions. The salutogenic model does not exclude pain or disease in life, but it measures how one copes with these life stressors in a manageable and predictable manner (Antonovsky, 1987, 1996). Psychosocial stressors are innate in human life and can even affect most protected lives (Antonovsky, 1987).

Methodology

We utilized a mixed-method design to understand the phenomena. There were three primary reasons for selecting this design. First, mixed methods are considered a third paradigm linking the differences that exist between the quantitative approach and the qualitative approach to research (Onwuegbuzie & Leech, 2004). In the view of this third paradigm for research, the objective of the current study was to attain through a quantitative design precision (Gavin, 2008) and through a qualitative design deep understanding (Miles, Huberman & Saldana, 2014). This methodological justification was important for our research because of the practical nature of mixed methods designs and their focus on outcomes and meaning in the real world (Johnson & Onwuegbuzie, 2004; Schreier, 2014). However, research techniques in mixed methods pose challenges, although the underlying philosophy of mixed methods has roots in pragmatism (Johnson, Onwuegbuzie & Turner, 2007).

The second justification for a mixed methodology for the current research arises from the notion that studies like this can be interdisciplinary in nature (Johnson & Onwuegbuzie, 2004). This means the content and the methodology can be developed from or across different subject matter and approaches. In addition, both research methods (quantitative and qualitative) are not extraneous in drawing upon their disciplinary assumptions on empirical studies to address research questions as commonly expected or known **(**Onwuegbuzie & Leech, 2004).

The third justification comes from Sechrest and Sidani (1995) who suggested that mixed methodologies are descriptive, constructive, and explanatory when seeking to address the research questions they aim to answer. Sechrest and Sidani argued for pluralism of methodology in mixed methods should be used to gauge errors of measurements, to check the effectiveness of data collection, and to understand the meaning the data convey. Because of this rationale, mixed methods have been extensively used in recent times in research and application (Brewer & Hunter, 1989; Johnson & Christensen, 2004; Newman & Benz, 1998).

Research Design and Data Collection

A mixed methodology has flexible designs that permit either using qualitative techniques first and then quantitative techniques or quantitative techniques first and then qualitative. Also, a mixed model design exists that uses the combination of qualitative and quantitative approaches in the entire procedure or stages of the research (Johnson & Onwuegbuzie, 2004). The approach of using both methods simultaneously proved a suitable strategy to measure SOC in Muslim participants attending universities in the middle Tennessee area.

A scale is reliable when its items measure in a consistent or similar way (Bland & Altman, 1997). According to Eriksson and Lindstrom (2005), in 124 studies, SOC with 29 items had a Cronbach Alpha range of .70 to .95. The range of Cronbach Alpha for 127 studies using SOC with 13 items was.70 to.92. A modified SOC from 60 studies showed that Cronbach Alpha ranged from .35 to .90. Eriksson and Lindstrom argued that the SOC is stable. Reliability analysis for data from the 29 items for our research showed a Cronbach Alpha of .78.

To collect qualitative data, we used four open-ended questions that asked students to write down responses to faith and stressors. The four questions focused on whether spirituality was a source of strength, meaning, and motivation, and whether it was important knowing there were others who shared their faith in the community. The descriptive-interpretive approach enabled the participants to explain the meaning of life's orientation in their own context. The qualitative descriptive-interpretive design employs less detailed interviews that are not typical of other qualitative research designs (Elliott & Timulak, 2005; Sandelowski, 2000). This data-

gathering procedure in descriptive-interpretive design, as a result, was flexible and suitable for the mixed model intended.

We collected demographic data on the following: gender, place of birth, age and college classification. This enabled us to know the students' countries of origin and places of birth—categories that later enabled us to measure the relationship of SOC to the place of birth. In addition, the Institutional Review Board (IRB) protocol and procedures were followed in our study.

Sample Characteristics

For accurate estimate and characteristics of the population in the sample, random and probability sampling is usually recommended (Pearson, 2010). However, such a sampling technique was not possible in this study since the students were a minority group living in a metropolitan area, and recruiting respondents using probability sampling proved unreliable and impractical. Identifying an appropriate population of practicing Muslim college students was the goal of the research. Islamic Centers and universities where Muslim students attended became recruiting locations for the participants for this research. With that underlying rationale, critical case and homogenous convenient sampling techniques became useful to identify participants for this research (Onwuegbuzie & Collins, 2007). Onwuegbuzie and Collins explained that convenient sampling techniques allow individuals to be selected for a research according to their characteristics and their "compelling" knowledge of the phenomenon. In this study, spirituality according to Islam was the experience intended to be measured and understood.

The other reason for the sampling technique for the study comes from Antonovsky (1987) that for non-western societies, “Sense of coherence is not impaired but is enhanced by the fact that control is located in a deity or hands of powerful others” (p.155). The convenient sampling of Muslim students was expected to reflect Antonovsky’s observation in this study. The researchers, based on this reason, assumed the sample would be representative of Muslim students in Tennessee universities. Table 1 shows the demographic characteristics of the participants.

Table 1

Sample Characteristics by Age and Gender

			Gender		
			Male	Female	Total
Age Groups	Under 22	Number	16	7	23
		% within Age Groups	69.6%	30.4%	100.0%
	23-28	Number	11	7	18
		% within Age Groups	61.1%	38.9%	100.0%
	29-33	Number	2	2	4
		% within Age Groups	50.0%	50.0%	100.0%
	34-38	Number	8	0	8
		% within Age Groups	100.0%	0.0%	100.0%
Total		Number	37	16	53
		% within Age Groups	69.8%	30.2%	100.0%

The participants were 37 males and 16 females ages 19 to 38. Table 2 shows the geographic places of birth of the participants.

Table 2

Geographic Places of Birth

	N	Percent	Valid percent	Cumulative percent
Kenya	8	15.1	15.1	15.1
Ethiopia	3	5.7	5.7	20.8
USA	15	28.3	28.3	49.1
Libya	7	13.2	13.2	62.3
Somali	7	13.2	13.2	75.5
Sudan	2	3.8	3.8	79.2
Pakistan	3	5.7	5.7	84.9
Turkey	1	1.9	1.9	86.8
Saudi	3	5.7	5.7	92.5
Uzbekistan	1	1.9	1.9	94.3
Kurdistan	2	3.8	3.8	98.1
Lebanon	1	1.9	1.9	100.0
Total	53	100.0	100.0	

Shapiro and Wilk's test ($p < .05$) and vision inspection of the histogram, normal Q-P plots and boxplots showed that SOC was approximately normally distributed for age groups and males with skewness of -.447 (*SE* =.388) and Kurtosis 1.079 (*SE* =.759). SOC with females had a skewness of -.026 (*SE* =.564) and kurtosis of -.854 (*SE* =1.059). Marital status and educational level were also approximately normally distributed for married students with three to four years of college education, with skewness of -1.055 (*SE* = .687), and for five to six years of college with skewness of -.093 (*SE*=.913) and kurtosis of -2.174 (*SE* = 2.000). Shapiro and Wilk's test was less than $p < .05$, and inspection of the histogram and normal Q-P plots did not indicate normal distribution for unmarried participants and three to four years of college. Shapiro and Wilk's test was greater than $p < .05$, indicating normal distributions for participants by age and place of birth against the dependent variable SOC scale for some participants as shown in Table 3.

Table 3

Place of Birth and Age Tests of Normality[b, c, d]

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Place of birth	Statistic	df	Sig.	Statistic	df	Sig.
SOC29	Kenya	.213	8	.200*	.950	8	.712
	Ethiopia	.184	3	.	.999	3	.927
	USA	.196	15	.126	.908	15	.127
	Libya	.228	7	.200*	.957	7	.789
	Somali	.271	7	.129	.914	7	.423
	Sudan	.260	2	.			
	Pakistan	.204	3	.	.993	3	.843
	Saudi	.285	3	.	.932	3	.497
	Kurdistan	.260	2	.			

* This is a lower bound of true significance.

a. Lilliefors Significance Correction

b. SOC29 is constant when Place of birth = Turkey. It has been omitted.

c. SOC29 is constant when Place of birth = Uzbekistan. It has been omitted.

d. SOC 29 is Constant when the place of birth = Lebanon. It has been omitted

The lack of normal distribution for some categorical variables when paired with the scale indicated that running multiple regression analysis could be problematic, but the test for assumptions for regression indicated the viability of the regression analysis. The test of assumptions showed independence of residuals, as assessed by a Durbin-Watson statistic of 1.758. The inspection of the histogram and normal P-P plot standard residual satisfied the assumption required for the dependent variable (SOC) indicating lack of nonlinearity or heteroscedasticity (Pearson, 2010). What justified the use of regression analysis for the research was the lack of nonlinearity or heteroscedasticity that could underestimate measures and produce an incorrect interpretation. Table 4 shows how assumptions for regression analysis were met.

Table 4

Test Results Showing Lack of Nonlinearity and Heteroscedasticity Residuals for SOC

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	149.1940	179.88	165.6154	8.06516	52
Std. Predicted Value	-2.036	1.769	.000	1.000	52
Standard Error of Predicted Value	2.883	7.013	4.586	1.021	52
Adjusted Predicted Value	146.9968	179.9937	165.7226	8.20155	52
Residual	-37.99666	34.22614	.00000	13.12902	52
Std. Residual	-2.749	2.476	.000	.950	52
Stud. Residual	-2.926	2.643	-.004	1.010	52
Deleted Residual	-43.04718	39.00316	-.10726	14.85260	52
Stud. Deleted Residual	-3.207	2.838	-.008	1.049	52
Mahal. Distance	1.237	12.143	4.904	2.640	52
Cook's Distance	.000	.190	.022	.044	52
Centered Leverage Value	.024	.238	.096	.052	52

Data Analysis

The mixed model allowed for a flexible and combined approach of using known qualitative and quantitative data analysis procedures. For quantitative data, multiple regression analysis was employed. Multiple regression tests relationships between two or more variables on outcomes (Creswell, 2015; Pearson, 2010). This was suitable since the study intended to test the relationship between the independent variables of educational level, gender, marital status, age level and place of birth with the dependent variable SOC. From this rationale, the test of relationships among the variables was expected to yield significant results that could predict Muslim participants' degree of coherence. We tested the following questions:

1) Is there a relationship between gender, marital and SOC?
2) Is there a relationship between education, gender, and SOC?
3) Is there a relationship between place of birth, education, and SOC?
4) Is there a relationship between education, age groups, and SOC?
5) Is there a relationship between marital status education and SOC?

We used content analysis to compare data and understand the students' lived experiences (Miles et al., 2014; Schreier, 2014). Coding, conceptualization and categorical formation preceded theme formation. In order to ensure consistency, accuracy, and trustworthiness, we used quality checks normally associated with qualitative studies such as peer debriefings, negative case analysis and audit trail (Royse, Thyer, & Padgett, 2016).

We performed multiple regression analysis to predict SOC with gender, age level, marital status, educational and place of birth. There was the independence of residuals, as assessed by Durbin-Watson statistics of 1.296. One case was found to be an outlier according to

Mahalanobis' D and Cook's D and was removed from the analysis. Visual inspection of studentized residuals and unstandardized predicted value confirmed homoscedasticity, meeting a critical assumption of multiple regression analysis (Creswell, 2015; Pearson, 2010). The multiple regression model produced for the five predictors showed statistically significant results, R^2 = .279, F (5, 47) = 3.64, $p < .05$. Table 5 describes the results of the regression model. All predictors were statistically significant in predicting SOC in the participants.

Table 5

Regression Model Statistics Related to SOC

				Change Statistics				
Model	R	R Square	Adjusted R Square	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.529[a]	.279	.203	3.644	5	47	.007	1.296

a. Predictors: (Constant), Education Level, Gender, Place of birth, Marital status, Age Groups

Individually, the predictors were not significant, except gender, as the coefficient and standard errors in Table 6 indicate.

Table 6
Summary Statistics, Coefficients and Correlations

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	192.627	8.491		22.685	.000	175.535	209.719					
	Place of birth	-.929	.721	-.172	-1.289	.204	-2.379	.522	-.160	-.187	-.162	.889	1.125
	Gender	-13.458	4.750	-.400	-2.833	**.007**	-23.019	-3.897	-.296	-.385	-.356	.794	1.260
	Marital status	-11.660	6.923	-.339	-1.684	.099	-25.594	2.275	-.323	-.241	-.212	.390	2.565
	Age Groups	-2.064	3.766	-.143	-.548	.586	-9.645	5.516	-.148	-.081	-.069	.233	4.299
	Education Level	6.430	3.475	.355	1.851	.071	-.564	13.424	-.006	.263	.232	.430	2.327

The qualitative data analysis revealed religion was central to the participants' lives. Faith was a source of their identity and a point of reference when rationalizing or trying to manage things at times of hardships. In an analysis of the data, we identified six key categories. These are listed in Table 7. Table 7 illustrates that guidance from faith in times of hardships was the most frequent category in the data, although belief in God follows in frequency for these participants.

Table 7
Key Categories Indicating Faith and its Importance in Daily Life

Key Categories	Frequency in the Data
Believing	21
Identity	11
Prayers	15
Knowledge	14
Acceptance	13
Guidance	29

The key categories were representative of major themes, and faith appears to be central to how participants managed their lives and how they interpreted circumstances in their lives. In times of hardships, basic rituals such as prayers and foundational knowledge of the religion seem concepts or constructs to refer to understanding challenges in life and how to deal with them. Antonovsky (1987) said these kinds of resources are "macrosociocultural," and a person uses them to cope with stressors individually.

Research using the qualitative approach often relies on the presentation of themes as major findings. Recent critique mentions this approach as not a deep analysis but mere labels that at times fail to explain meaning and understanding of experiences (Bazeley, 2009). To avoid such a pitfall, we present themes in Table 8 along with examples from the data illustrating the meaning and understanding the participants attached to each theme.

Table 8
Categories and Themes

Category & Cases (C#)	Themes	Key terms	Response that illustrates
Via Prayers C33 C40, C43, C37, C41	Worship	Prayers, worship, turning to God, scriptures	1) Prayers and attending worship services have been key strategies for me in dealing with stress 2) By praying my stress is relieved and I do my part and let God handle rest 3) Gives me peace
Faith guides C35, C45, C47, C6	Guidance	Guides, source, assures, refuge	1) Guides me towards finding a solution for stressful events 2) Guides me through all of my life— Always seek refuge in God 3) I look at my faith for guidance especially when I feel lost confused or stressed
Knowledge C38, C48 C44	Knowledge base	Finding a solution, lesson that is complete	1) It guides me towards finding a solution for stressful events 2) My faith has a solution to everything 3) It does not leave a person guessing on the meaning of life since it provides guidance
Identity C6M, C4, C41, C 38, C24F C25	Identity	How I carry myself. Who I am	1)The way I walk and carry myself is through my faith-- it made me the man I am 2) Without Islam, my life has no meaning. 3) God in my life … gives me a purpose for life and after.
Believing and acceptance C7m, C13 m, C39	Belief	High power, creator, accepting situations	1) It gives me the hope that there is "high power" who created me and takes care of every aspect of my life. Why should I worry— 2) I trust God and believe that. He is in control over my life. 3) When faced with difficult situations, I remember God will guide me through it 4) In a peaceful way because I feel God is watching me and everything is in His mercy. That is why am contented all the time

Discussion

The purpose of this research was to measure the SOC of Muslim participants attending universities in middle Tennessee and to understand the role faith played in how they manage challenges in life. From quantitative data, the linear regression analysis shows significant results that indicate the independent variables together predict SOC for the participants. However, apart from gender, the rest of the independent variables were not significant predictors of SOC. Qualitative data analysis provided important interpretations of why education and gender had stronger correlations compared to other variables.

The participants, from the qualitative data, indicated that religious practices were major contributors and key constructs in how they handled life's stressors. One participant's comments clarified this understanding when responding to how important his faith was to him in his life: "*As the cascade of lesson that is complete with how humans actually perceive life. It does not leave a person guessing on the meaning of life since it provides guidance"* (Case 44). Another important comment on the same theme of knowledge and its value to the participants was, *"It makes* (*me*) *act or not to act in a better and proper way. [I]Always count on knowledge and wisdom it provides when I've to make decisions"* (Case 30). These participants referred to common belief, among Muslims of all sects, that the scripture provides guidance in all aspects of a person's current life and life after death. It is customary for a practicing Muslim to recite continuously the scripture for blessings and inspiration daily and to glean from it meaning for anything that does not make sense in life.

Qualitative data, apart from the comparison with quantitative data on education, gender, or its equivalent themes of guidance or knowledge, revealed deep reliance on rituals and on religion generally to predict life's events or anticipating outcomes in life. Religion appeared to be a major contributor to orientating or helping the participants to manage situations or facilitate important decisions in their lives. At times of hardships, prayers and mere thinking of God or hope for divine intervention illustrated how participants used faith in their lives. The following comments indicate how prayer helped participants: *"Yes, prayers five times in a day ... protect me from evil and sin*" (Case 46). "*Yes, if I pray today my next day is better"* (*Case 34*). *"Via prayers that give me peace"* (Case 33). In addition, belief in God alleviated hardships: *"I remember God when most stressed"* (Case 50). [I have]*"continuous belief that good is watching over me and there to protect me"* (Case 27). *"Yes, Strength comes from God and knowing that dissipates all my fears"* (Case 11). In these comments, the participants refer to the major pillars of their faith, prayers, and belief in God. Comments on prayers were not surprising because prayers in Islam are considered a link between the worshipper and the Creator. The standard prayers are five, but one can perform additional voluntary prayers at certain times of the day.

All participants responded positively to the three qualitative questions that asked how they drew strength, meaning, and courage from religion. But on the fourth question that asked whether it was important for them to know there are people who share their faith, 94% of the participants said it was important. Three participants did not consider it important to know there were others who shared their faith. They had unique reasons for thinking this, as the following comments show: Case 37 said, "*Not really. My close friends aren't Muslims*." Case 2 said, "*All I care is that God recognizes me."* The third participants, Case 25, said, "*It is not important to see people on the campus, but I do think it is important to know other Muslims around the community and mosque."* Islamic traditions embody faith and some of its practices in an outward manner, and sense of community among the believers is often emphasized and practiced. This

sense of traditional Islam appears contradicted and unimportant to these three participants in the study.

Antonovsky (1987) argued ties between individuals are important resources and vital tension managers. The participants overall confirmed their community and individual relationships were significant in their experiences. The community and its resources created strong SOC. This supports what Antonovsky (1987) explained, that in non-western societies, control was located in "the deity or powerful others." A common awareness among the participants regarding this very notion was illustrated in comments from participants: *"When I am not getting things ... [in the] way I had hoped or something bad happens, I know I can trust God that it must be for [the] better"* (Case 20). A similar experience was noted by Case 25 referring to faith and inspiration:*" It gives me courage and security. Honestly –it is difficult to explain it in words.*"

Antonovsky (1987) stated religiosity or reliance on powerful others indicates a strong SOC, but he emphasized this notion is prevalent in non-western cultures. Antonovsky explained in western culture the prevailing notion is that the individual is in control of things. However, the strong tie to religion for the western-born young Muslims who were 28% of the participants was surprising and contradicted the western attitude Antonovsky mentioned. The following participants demonstrated examples of strong bonds with faith: "*I look at my faith for guidance especially when I feel lost, confused or stressed"* (Case 35). *"When faced with difficult situations, I remember God, and this provides me with courage knowing He will guide me through it*" (Case 39). In recent times, some researchers have identified strong SOC depicts strong spirituality and good coping mechanism in western cultures (Delgado, 2007; Zarzycka & Rydz, 2014). These findings seem to be present to a greater extent among the elderly and sick people, not young people like the participants in this research.

Conclusion, Recommendations, and Implications

The participants in this study, although from diverse backgrounds, indicated religion had a lot to do with how they reacted to stressful situations in their lives. Both qualitative and quantitative data indicated a strong SOC in a positive direction. The linear regression analysis demonstrated that together the five independent variables of gender, age, education, marital status, and place of birth predict a positive relationship with SOC. However, lack of significance for the four predictors individually, except gender, indicates a limitation. There are also methodological limitations due to an inability of the convenient sample used in this research to generalize results to all Muslims students or students from other faith. Further research, therefore, with a larger sample, containing participants from other faiths, is recommended to re-examine the relationships or impact of association of the predictors and SOC as theorized in this research for Muslim university students in Tennessee.

Results from qualitative data indicate religion and its practices determine predictable and stable patterns of how stressors are viewed and interpreted. This confirms strong relationships can occur between a person's orientation toward life (SOC) and religious practices, thereby, promoting a healthy way of coping with stressors. The results also confirm a strong degree or level of SOC does not mean a lack of stress or disease, but positive movement in the continuum and good use of the resources to manage life in stable and predictable ways (Antonovsky, 1987; Mittelmark & Bauer, 2017).

The results of this study further confirm that spirituality can be a significant tool in how people view the world. The major themes of belief, identity, worship, and knowledge base or taking scripture or deity as a point of reference to accept challenging situations demonstrated

pathways participants connected with the world using resources from their experiences. These represented mechanisms serving them to cope with stressors in life.

Finally, the results show how problematic it can be for participants when we fail to respond to their faith inside and outside the classroom. The implication of the study, as a result, is that spirituality shapes other people's worldview and assists them in far more pragmatic ways than previously assumed. Religiosity or spirituality seemed a central observable construct for these participants and may be present in other students in western universities that the study did not cover. Understanding its affects or impacts on individuals may lead to a better rapport with them and effective teaching for all.

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