American Journal of Medical Sciences and Medicine, 2020, Vol. 8, No. 3, 109-119
Available online at http://pubs.sciepub.com/ajmsm/8/3/3
Published by Science and Education Publishing
DOI:10.12691/ajmsm-8-3-3

Stigma among Saudi Youth: Across-sectional Study on Secondary and Intermediate School Adolescent Attitudes towards Serious Mental Illness in Taif City 2019

Alaa M Alwagdani[1,*], Naif A Alzahrani[1], Bassam A Alzaidi[1], Fahad Ghazi Almatrafi[1], Wejdan M Safar[2], Abdulelah Abdulrahman A[2]

[1]R4 Family Medicine Resident, Prince Mansour Military Hospital, Department of Family Medicine, Taif, KSA
[2]General Practitioner, ALHADA MILITARY HOSPITAL, Taif, KSA
[3]4th YEAR MEDICAL STUDENT at Taif University, KSA
*Corresponding author: 3laa.alwagdani@gmail.com

Received May 28, 2020; Revised June 29, 2020; Accepted July 08, 2020

Abstract **Background:** Stigma is a fundamental barrier to individuals seeking out mental health treatment in the Middle East. The impact of stigma may be amplified if the engagement in and utilization of mental health services for psychosis further stigmatizes individuals and their families Stigma toward mentally ill individuals acts as a barrier to accessing care and receiving treatment. Stigma experienced from family members is pervasive. Moreover, social disapproval and devaluation of families with mentally ill individuals are an important concern. This holds true particularly with regards to marriage, marital separation and divorce. Psychic symptoms, unlike somatic symptoms, are construed as socially disadvantageous. Thus, somatization of psychiatric disorders is widespread. Negative attitudes towards mental illness are influenced by culture and affect people's behavior differently depending on their cultural background. This is not to say that younger people have no stigma towards the mentally ill. Attitudes towards various aspects of mental illness, including its conceptualization and stigma towards the mentally ill are thought to form at an early age. The most urgent problem of mental health care in is the lack of personal and financial resources. Thus, mental health professionals are mostly located in urban areas. This increases the barriers to seek help and contributes to the stigmatization of the mentally ill. **Aim of the study**: This study aims to explore the dimensions of stigma and social tolerance and examine its correlates in the younger, population of Taif city. **Method**: cross sectional study conducted at secondary and intermediate schools at Taif city in 2019. Sample population consists the participants were youths aged 14-18 years old residing and studying in Taif at the time of data collection. Our total participants were (400) .**Results:** The Mean+ SD age of the sample was (16.923±1.582). Regarding of age was (13-32) and regarding the gender were 225 (57.7%) participants were male while females was (42.3%). most of the sample is shown secondary education was (89.2%) while preparatory was (10.8%) most of participant were Saudi nationality was(95.6%) a significant relation between age and Physical danger, Class thinking, Personal space where respectively (P-value=0.032, 0.000, 0.029) and r Respectively (0.108, 0.183.), Non-Saudi students had higher for contact with mentally ill individuals compared with Saudi students. **Conclusion**: We propose the following initiatives to reduce stigma toward mental illness in the KSA: (a) Health education to families to enable them to support their affected relatives, (b) Increase cooperation between psychiatrists and faith healers and (c) Health education programs to the young people in schools to increase their awareness and understanding of mental illnesses and to combat negative stereotypes.

Keywords: *Stigma, Saudi, youth, secondary, intermediate, school, adolescent, attitudes, mental, illness, Taif*

Cite This Article: Alaa M Alwagdani, Naif A Alzahrani, Bassam A Alzaidi, Fahad Ghazi Almatrafi, Wejdan M Safar, and Abdulelah Abdulrahman A, "Stigma among Saudi Youth: Across-sectional Study on Secondary and Intermediate School Adolescent Attitudes towards Serious Mental Illness in Taif City 2019." *American Journal of Medical Sciences and Medicine*, vol. 8, no. 3 (2020): 109-119. doi: 10.12691/ajmsm-8-3-3.

1. Introduction

1.1. Background

Psychological troubles issues for secondary and middle school teenagers allude to the scope of all diagnosable enthusiastic, conduct, and mental issue. They incorporate gloom, nervousness, alteration, lead, dietary issues, and others. Youngsters have mental, enthusiastic, and social issues that are genuine, agonizing, and costly. These problems are a supply of stress for adolescent as well as properly as his family, school, community, and bigger society in the quick and lengthy term. [1] Adolescents experience fast biological, psychological, and social

transitions that can be related with intellectual wellness issues. During the secondary school time frame there are additionally extra educational stressors [2].

In psychiatry, the definition stigma shows a collection of poor antagonistic perspectives, convictions, ideas and behavior's main to fear and conduct's driving individuals to dread, dismiss and minimize people influenced by mental clutters [3]. This gathering (secondary and middle school adolescent) is generally powerless against mental unsettling influences, and their danger of mental sick wellbeing is higher than that of some other effortlessly distinguished gathering in our society and research have constantly proven a excessive incidence of emotional and behavioral troubles at such an age [1,2,4].

The stated pervasiveness of mental or intellectual issue among youths, differ from find out about to find out about and from area to place. In western nations, the pervasiveness of intellectual health well-being issues among youths has been suggested to be in the range of 2 and 56%. [1,5]

The personal satisfaction of individuals with intellectual problems and their family members not just relies upon the seriousness of the illness, however additionally on their capability to face stigma and discrimination associated to the illness; these reason contrary results regarding deferred or absence of access to mind. Individuals with psychic distress regularly often avoid contacting mental health services administrations to get away from the danger of being marked as intellectually sick or be marginalized or discriminated [6]

As indicated by epidemiological examinations directed in Europe and in the United States, mental behaviors are basic frequent traits of our urban social orders. Their recurrence is assessed at just about one fourth of everybody in many nations. As such, one of four individuals is relied upon to report adequate rules to be determined to have a type of mental illness sooner or later in his/her life. Close to this measurable information, psychological sickness is as yet a reason for disparagement, social dismissal and separation in current society. Regardless of the astounding advances revealed in the most recent decades in psychiatry and psychotherapy. [7]

As to anticipation and treatment of mental issue, the image of the risky crazy person, the image of the darkish haven or the emotions of loneliness forlornness and estrangement related with the mentally sick, present during hundreds of years in in famous way of life and in art, are nevertheless striking vivid in our minds and they are capable to stimulate our imagination. [6]

Goffman (1963) likewise characterized stigma as 'the procedure by which the response of others spoils ordinary personality'. [8] These responses originate from prejudgment of an individual dependent on restricted data. Stigma consequences in labeling, preference, generalizing, partition, status misfortune and negative segregation (Link and Phelan, 2001) [9].

In Arab nations the research in this age bunch are restricted, one research carried out in United Arab Emirates gauge that 24% of the kids and teenagers are suffering from emotional and behavioral problems [10].

Late research's carried out in different social settings demonstrate that the old stigma related with psychological sickness is as yet present existing in the most piece of population. Mentally sick individuals are seen as flippant, unable to manipulate themselves, hopeless, irremediably, misplaced for the society, perilous or a subject of benevolence and sympathy. [11,12]

1.2. Review of Literature

Meaning of Stigma when any person sees you in an antagonistic manner thou bear a distinguishing characteristic yet non-public trait this is thought after be, or definitely is, a disadvantage (a bad stereotype). Tragically, adverse perspectives and beliefs toward people who have a mental well-being situation are common [13].

Shame is normal toward people with mental health issues and can be characterized remain described as a label that sets an individual apart beyond others, connects her or him with bothersome qualities and prompts shirking by others in the community [14].

Shame can lead in imitation separation. Separation might be clear and immediate, for example, anyone offering a negative comment about your psychological sickness or your treatment. Or then again it might be unexpected or inconspicuous, for example, anyone maintaining a strategic distance from you on the grounds that the individual expect you could be temperamental, vicious or perilous because of your psychological sickness. You may even judge yourself [15].

A portion of the destructive impacts of Stigma among Saudi youth on auxiliary and transitional school adolescent attitudes towards serious mental illness can include [10]

- Reluctance to look for help or treatment
- Lack of comprehension by family, companions, collaborators or others
- Fewer open doors for work, school or social exercises or bother finding housing
- Bullying, physical viciousness or badgering
- Health protection that doesn't enough cover your psychological instability treatment
- The conviction that you'll never prevail at specific difficulties or that you can't improve your circumstance

Stigma is complicated and happens on a couple of levels. Researchers have evaluated many varieties of stigma including: self-stigma, perceived stigma, enacted stigma, structural stigma, institutional stigma, health care giver stigma, etc. To give an explanation for how personal and societal-level characteristics work collectively to have an effect on norms, attitudes, beliefs, and behaviors toward mental sickness inside the United States, 3 models have been offered: the social mental model, the attribution model, and the framework integrating normative impacts on stigma (FINIS) model [16]

A evaluation of the epidemiology of kid and adolescent mental issue reports that mental issue can show up early on in lifestyles and contrarily influence affect several aspects of a young person’s life existence poor well-being, self-esteem, social relationships in and, confidence, social connections all through school and academic accomplishment. Stigma similarly compounds these troubles via decreasing well-being and appearing as a barrier to assist seeking. [17] Therefore, psychological well-being shame influences youthful grown-ups and

young people of tutoring age during a significant period of improvement in their life. [18]

Besides more established older kids had higher appreciation of mental sickness as emotional and psychological disturbances, the assessment recommended that negative perspectives expanded with age in the two kids and adolescents. Studies have likewise demonstrated those adolescents are hesitant to associate intimately with those with psychological illness by showing want for social distance. [19]

Smith and his colleagues (2011) Doing a research named with "Public perceptions, knowledge and stigma towards people with schizophrenia". As to worry of our research, this study found that more elevated level of information about psychological disease is related with more elevated level of social resilience and low degree of disgrace.

[18] Similarly Hansson and others (2016) under a patronage of Swedish national ant stigma campaign conducting a study to examination changes in public stigma during this examination compared to baseline in 2009. They found a significant positive effect on mental health literacy, attitudes, and intentions of social contact with individuals with mental disease. [19]

The more recently of late a cross-sectional research on adolescent attitudes perspectives towards mental sickness and social resilience in a multiethnic populace as Singaporean youth by Pang and his collogues (2017).

The researches indicated that there is a misguided judgment and negative perspectives towards mental sickness are normal, and demonstrating a clear wants for effective stigma decrease campaigns. [20]

In 2005, Smith took the mental sickness stigma from anther see and conduct a rehearses to investigate the activity of media in improvement mental sickness stigma and he found that the media plays a great role in creating this sense of self-stigma, and influence help seeking rehearses. [21]

Another researches done in 2007 by Lowder to inspect the connection between age group and attitudes toward mental sickness. It noticed that the older adult sample was expected to show more positive attitudes toward the mentally sickness and less negative attitudes due increased opportunities for contact with mental sickness. [22]

1.3. Rationale

In relation to mental illness in Saudi Arabia indicates the lack of an accurate estimate for the prevalence of such problems among the Saudi population. However, a few studies have been conducted in relation to specific mental disorders or particular populations and age groups. It may be related to stigma of mental illness that interferes with the patient's decision to seek help. [23]

While there is a growing literature on mental illness stigma and strategies for reducing stigma among adults, less is known about how children and adolescents view persons with mental illness in Taif city.

1.4. Aim of the Study

This study aims to explore the dimensions of stigma and social tolerance and examine its correlates in the younger, population of Taif city.

1.5. Specific Objective

- To determine the relationship between young age and attitude toward serious mental illness among youth at Taif city .
- To recognize the relationship between young age and social tolerance toward serious mental illness among youth at Taif city.

2. Methodology

2.1. Study Setting

This study has been conducted at secondary and intermediate schools at Taif city in 2019.

Intermediate and secondary education in Saudi Arabia:

Intermediate education in Saudi Arabia lasts three years. According to government data, 40,454 students (19,864 male and 20,590 female) were in intermediate education in 2019 at Taif. Secondary education in Saudi Arabia lasts three years and this is the final stage of general education. After the intermediate education, students have the opportunity for both general and specialized secondary education. Technical secondary Industrial institute which provide technical and vocational education and training programs lasts three years in the fields of industry, commerce and agriculture. According to government data, 24,976 students (10,106 male and 14,870 female) were in secondary education in 2019 at Taif.

2.2. Study Population

The Participants consists of youths aged 14-18 years old residing and studying in Taif at the time of data collection.

2.3. Study Design

Cross-sectional study, Multi-stage sampling has been adapted.

2.4. Inclusion Criteria

- Willing and able to participate in the study.
- Aged 14-18 years old.

2.5. Exclusion Criteria

- No specific exclusion criteria.

2.6. Sample Size

Based on the ministry of education, General Department of Education in Taif city the population size of 65,430 students in secondary and intermediate schools.

Using EPI info version 7, the study sample size has be determined as follows:

With expected frequency = 50%. Worst acceptable result = 5%. With 95% confidence interval

Accordingly, a sample size (n) has been (382). In order to account for non-response and achieve more generalizable

results, the investigator has be increase the sample size up to (400).

2.7. Sampling Technique

Multi-stage sampling has be adapted.

2.8. Sampling Method

1. **STAGE ONE**

Taif city has be divided into four sectors (east, west, south, and alhawiyah) and from each sector, two male and two female schools (one intermediate and other secondary schools)has be selected by simple random technique, a total of sixteen schools has be randomly selected.

2. **STAGE TWO**

In each randomly selected school, twenty five students has be selected by stratified sampling technique

2.9. Data Collection Method

Self-administered questionnaire has been given to all participants.

Questionnaire:

Self-administered questionnaire has be used. The questionnaire has be done by the researcher after reviewing of current, related national and international related literature. It consisted of four sections .

- **The first section** aimed to assess the socio-demographic characteristic of the participants (e.g., sex, age, educational level, nationality). In addition to question related to words that the student think of when he/ she hears the words 'mental illness''.
- **The second section**:

ATSMI-AV21 Scale (attitude toward serious mental illness- Adolescent version): [24]

The ATSMI-AV Scale is a validated 19-item self-report scale that measures attitudes towards mental illness. Responses to statements are based on a five-point Likert scale where one indicates 'completely disagree' and five indicates 'completely agree'. The scale explores perceptions of violence, social avoidance, and embarrassment if one were diagnosed as having a mental illness and personal invulnerability to mental illness. Previous research identified five factors comprising threat, social control/concern, wishful thinking and categorical thinking and out of control.

A factor-based scale score ranging from 1 to 5 may be calculated for each factor, with higher scores indicating higher levels of stigma towards mental illness.

The first factor titled threat (eg, 'Mentally ill people scare me') refers to the fear of direct harm to oneself or one's reputation due to contact with mentally ill individuals and consists of four items.

The second factor titled social control/concern (eg, 'I sometimes worry that I may have a mental illness') consists of four items and pertains to concerns about being diagnosed with a mental illness and subsequently labeled by society.

The third factor titled wishful thinking (eg, 'People who are mentally ill could be well if they tried hard enough') refers to unrealistic thoughts towards recovery from mental illness and consists of four items. In contrast,

The fourth factor titled categorical thinking (eg, If you become mentally ill your life is pretty much over') refers to all-or-nothing thought patterns towards the concept of mental illness and consists of four items.

The fifth factor titled out of control (eg, 'mentally ill people tend to be more violent than other people') consists of three items and relates to the association between mental illness and deviant behaviour.

Social Tolerance Scale:

The Social Tolerance Scale measures social tolerance through desire for social distance (seven items) and social responsibility for mental health issues (four items). Items has be rated on a five-point scale ranging from 'strongly agree' to 'strongly disagree'. Higher scores indicate higher levels of stigma towards mental illness. According to the scale developers, the Cronbach's alpha for the scale was 0.87. However, a factor analysis was warranted to verify the factors for the Social Tolerance Scale in the present sample.

2.10. Questionnaire Validity

In this paper, we describe the Attitudes Toward Serious Mental Illness. The investigator used Scale-Adolescent Version (ATSMI-AV) and our initial examinations of structure of adolescents. distributed the Questionnaire to three consultants of different specialties (family medicine, community medicine, and psychiatrists)who have enough experience and interest in the subject and some amendments were done, accordingly.

2.11. Data Entry and Analysis

Data has be collected and verified, variables coded and then entered to a MS program with adequate backup. Both categorical variables (i.e., closed-ended questions offered fixed responses), and continuous variables (open ended questions the answers to which require quantities) has be handled. Descriptive statistics, e.g., number, proportions, cumulative proportions, mean and standard deviation, etc. has be displayed, as appropriate. Analytically, parametric techniques, e.g., t-test and ANOVA, has be attempted, as applicable, especially analyzing normally distributed variables. Otherwise, non-parametric alternatives, e.g., Man Whitney U test and ANOVA or χ^2 test of independence, has be used, as necessary. The Statistical Package for Social Sciences (SPSS) software for MS- version-23 has be used for the analysis. All tests has be conducted at level of significance a=0.05; results with p-values<0.05 has be considered "statistically significant."

2.12. Pilot Study

A pilot study has been done on 35 students who meet the study's eligibility criteria. The pilot study has mainly help examine both the instrument's content validity and construct validity issues, alongside with other needed information, as follows: a) test the understanding of the instruments' questions, undergo necessary changes and modifications, accordingly .The results has be excluded from the final research report.

2.13. Ethical Considerations

1. Necessary approval by the Research Ethics Committee of the secondary and intermediate schools at Taif city, has be obtained prior to the study.
2. A written consent has been obtained both from administrators of the secondary and intermediate schools in Taif. The aim of the study has been explained to them. Feedback about the results has been sent to these organizations .
3. Consent has been obtained from each participant to voluntarily participate in the study.
4. Data was be treated confidentially and has be used only for the purpose of research

2.14. Expected Study Limitation

Difficult to determine a situations where some students may not be so willing to respond fully to the questionnaire's items, jeopardizing the study's response rate, and hence the results' generalizability. On our part, we will first explain to participants the importance of the study, clarify to them the exact questionnaire aim and contents, in order to remove their worries and assure confidentiality. Such action may well enhance their responses to the questionnaire's encompassed questions.

Short time and limited resources and large study sample.

2.15. Budget

Self-funded..

3. Results

Out of (390) student invited to participate in the study, the completed questionnaire with a response rate of (100.0%).

The socio-demographic data of the sample is shown in Table 1. The Mean+ SD age of the sample was (16.923±1.582). Regarding of age was (13-32) and regarding the gender were 225 (57.7%) participants were male while females was (42.3%). most of the sample is shown secondary education was (89.2%) while preparatory was (10.8%) most of participant were Saudi nationality was (95.6%).

Table 2 show the majority of the Adolescent's impression of mental illness is the optimistic thinking were increase in high than Average and low, where (80.0%) and the ranged from 4 to 20 by mean+SD (16.667±2.958), followed by Respectively Social side, Class thinking were increase, Physical danger and Avoid naming (stigma) in Average than high and low, where Respectively(57.4%,61.0%,44.4%, 43.1%) and the ranged from (4 to 20 and 3-15) by mean+ SD Respectively (12.095±3.188, 11.767±2.896, 11.172±3.812, 9.597±2.944). Regarding the measure of social acceptance towards mental illness show the majority of the Participants answer is Social responsibility were increase in high than Average and low, where (61.8%) and the ranged from (5 to 25) by mean+ SD (19.410±3.996),followed by Personal space where (49.5%) and the ranged from (6 to 25) by mean+ SD (16.113±3.891).

Table 1. Distribution of demographic data (age, gender, Level of education, Nationality) in our study (n=390)

	N	%
Age		
< 15	28	7.2
15-18	236	60.5
>18	126	32.3
Range	13-32.	
Mean+SD	16.923±1.582	
Gender		
Female	165	42.3
Male	225	57.7
Level of education		
Preparatory	42	10.8
Secondary	348	89.2
Nationality		
Saudi	373	95.6
Non-Saudi	17	4.4

Table 2. Distribution of the Adolescent's impression common words associated with the term 'mental illnesses

	Low		Average		High		Score	
	N	%	N	%	N	%	Range	Mean±SD
Adolescent's impression of mental illness								
Physical danger	142	36.4	173	44.4	75	19.2	4-20.	11.172±3.812
Optimistic thinking	10	2.6	68	17.4	312	80.0	4-20.	16.667±2.958
Class thinking	83	21.3	238	61.0	69	17.7	4-20.	11.767±2.896
Avoid naming (stigma)	103	26.4	168	43.1	119	30.5	3-15.	9.597±2.944
Social side	77	19.7	224	57.4	89	22.8	4-20.	12.095±3.188
A measure of social acceptance towards mental illness								
Personal space	87	22.3	193	49.5	110	28.2	6-25.	16.113±3.891
Social Responsibility	25	6.4	124	31.8	241	61.8	5-25.	19.410±3.996

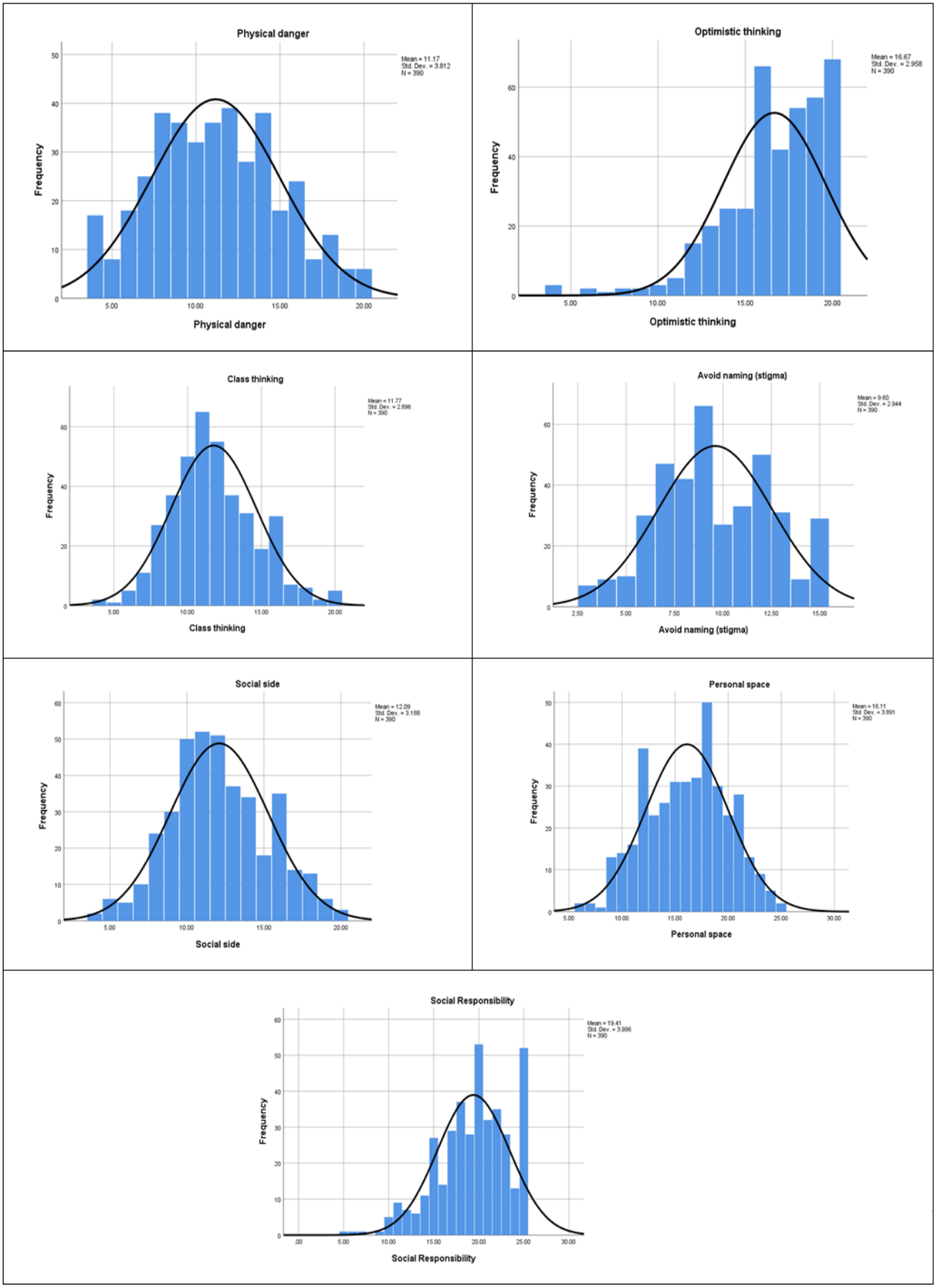

Figure 1. Distribution of the Adolescent's common impression associated with the term ‘mental illnesses and A measure of social acceptance towards mental illness

Table 3 show that is a significant relation between age and Physical danger, Class thinking, Personal space where Respectively (P-value=0.032, 0.000, 0.029) and r Respectively (0.108, 0.183.) while no significant relation between age and Optimistic thinking, Avoid naming (stigma), Social side, Social Responsibility where Respectively (P-value=0.256, 0.000, 0.930, 0.059, 0.213) (less than significant level 0.05) and r Respectively (0.058, -0.004, 0.096, 0.063).

Table 4 show that is a significant relation between gender and all item of ATSMI-AV where Respectively (P-value=0.002, <0.001, 0.029) respectively (T=-3.136, 3.771, -3.353, -3.883, 4.348, 4.447) while no significant relation between gender and Personal space (P-value=0.473) (less than significant level 0.05) and (T=0.718) male had lower ATSMI-AV towards mental illness compared with females expect social side and Social Responsibility the females had lower to engage in supportive action towards with a mental illness compared with male.

Table 5 show that is a significant relation between Level of education and Physical danger, Class thinking, Avoid naming (stigma), Personal space where Respectively (P-value=0.002, <0.001, 0.002, 0.036, <0.001) respectively (T=-3.129, -3.561, -3.090, -2.109, 4.348, 4.438) while no significant relation between level of education and Optimistic thinking, Social Responsibility where Respectively (P-value=0.741, 0.274) (less than significant level 0.05) and (T=0.331, 1.095) Secondary education had higher ATSMI-AV towards mental illness compared with Preparatory

Table 3. The Correlations between socio demographic (age) and the ATSMI-AV

Correlations		
	Age	
	r	P-value
Physical danger	0.108	0.032*
Optimistic thinking	0.058	0.256
Class thinking	0.183	0.000*
Avoid naming (stigma)	-0.004	0.930
Social side	0.096	0.059
Personal space	-0.111	0.029*
Social Responsibility	0.063	0.213

Table 4. The Correlations between socio demographic (Gender) and the ATSMI-AV

	Gender						T-test	
	Female			Male				
	Mean	±	SD	Mean	±	SD	t	P-value
Physical danger	10.473	±	3.720	11.684	±	3.806	-3.136	0.002*
Optimistic thinking	17.315	±	2.554	16.191	±	3.143	3.771	<0.001*
Class thinking	11.200	±	2.555	12.182	±	3.062	-3.353	<0.001*
Avoid naming (stigma)	8.933	±	3.006	10.084	±	2.806	-3.883	<0.001*
Social side	12.230	±	3.015	11.996	±	3.312	0.718	0.473
Personal space	17.091	±	4.173	15.396	±	3.510	4.348	<0.001*
Social Responsibility	20.436	±	3.514	18.658	±	4.164	4.447	<0.001*

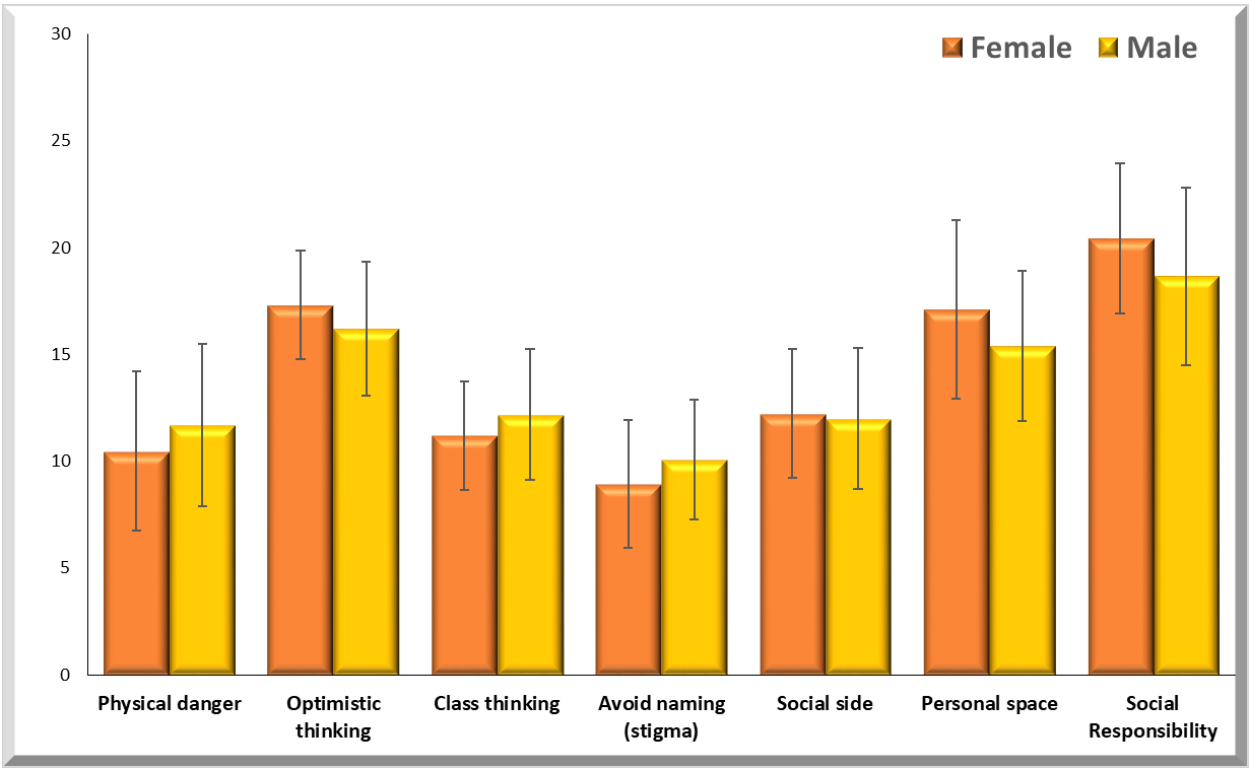

Figure 2. The Correlations between socio demographic (Gender) and the ATSMI-AV

Table 5. The Correlations between socio demographic (Level of education) and the ATSMI-AV

	Level of education						T-test	
	Preparatory			Secondary				
	Mean	±	SD	Mean	±	SD	t	P-value
Physical danger	9.452	±	3.507	11.379	±	3.800	-3.129	0.002*
Optimistic thinking	16.810	±	2.805	16.649	±	2.979	0.331	0.741
Class thinking	10.286	±	2.442	11.945	±	2.898	-3.561	<0.001*
Avoid naming (stigma)	8.286	±	2.916	9.756	±	2.912	-3.090	0.002*
Social side	11.119	±	2.276	12.213	±	3.264	-2.109	0.036*
Personal space	18.571	±	3.277	15.816	±	3.858	4.438	<0.001*
Social Responsibility	20.048	±	3.290	19.333	±	4.070	1.095	0.274

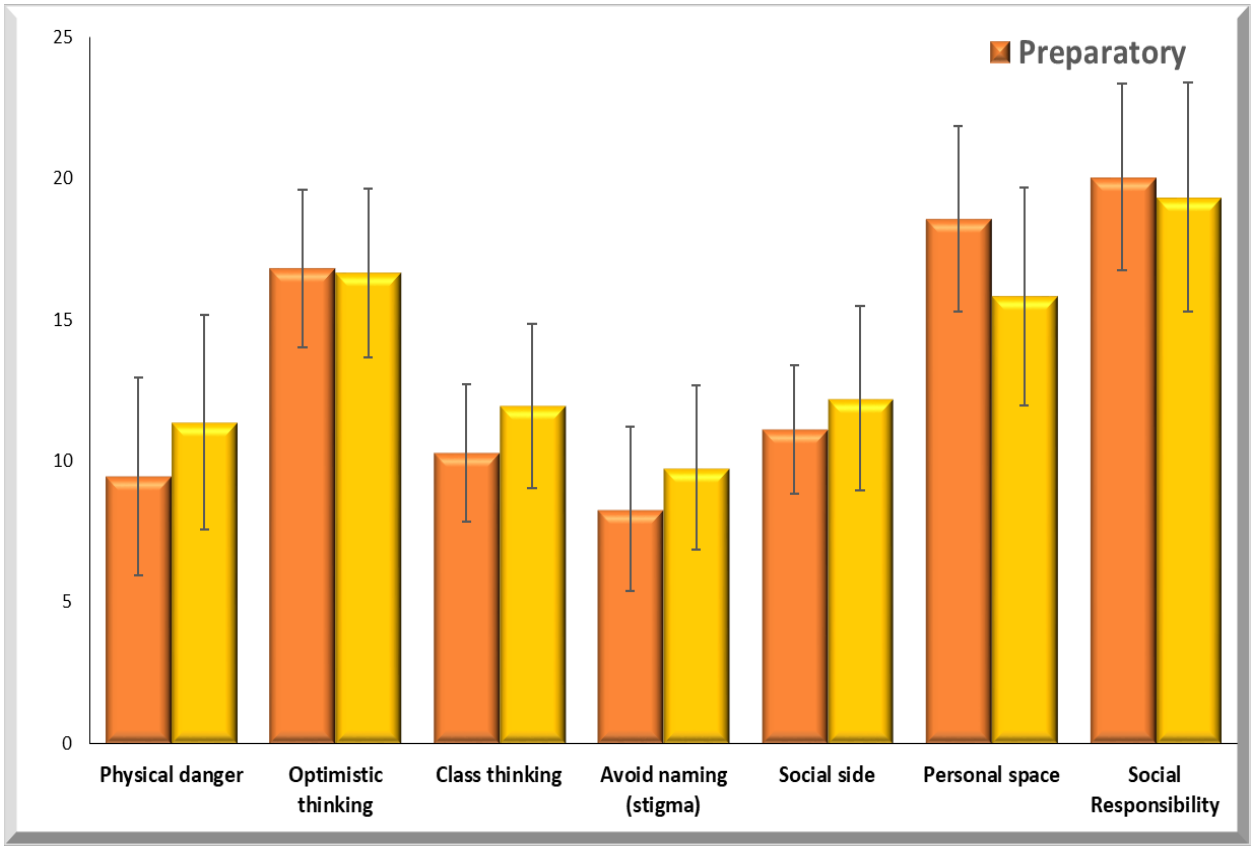

Figure 3. The Correlations between socio demographic (Level of education) and the ATSMI-AV

Table 6. The Correlations between socio demographic (Nationality) and the ATSMI-AV.

	Nationality						T-test	
	Saudi			Non-Saudi				
	Mean	±	SD	Mean	±	SD	t	P-value
Physical danger	11.193	±	3.737	10.706	±	5.324	0.515	0.607
Optimistic thinking	16.638	±	2.980	17.294	±	2.392	-0.894	0.372
Class thinking	11.780	±	2.894	11.471	±	3.002	0.431	0.667
Avoid naming (stigma)	9.558	±	2.943	10.471	±	2.918	-1.251	0.212
Social side	12.083	±	3.157	12.353	±	3.920	-0.341	0.733
Personal space	16.059	±	3.877	17.294	±	4.120	-1.281	0.201
Social Responsibility	19.316	±	4.000	21.471	±	3.375	-2.184	0.03*

Table 6 show that is a significant relation between Nationality and Social Responsibility where (P-value=0.03) and (T=-2.184) while no significant relation between Nationality and all items of ATSMI-AV while Non-Saudi students had higher for contact with mentally ill individuals compared with Saudi students.

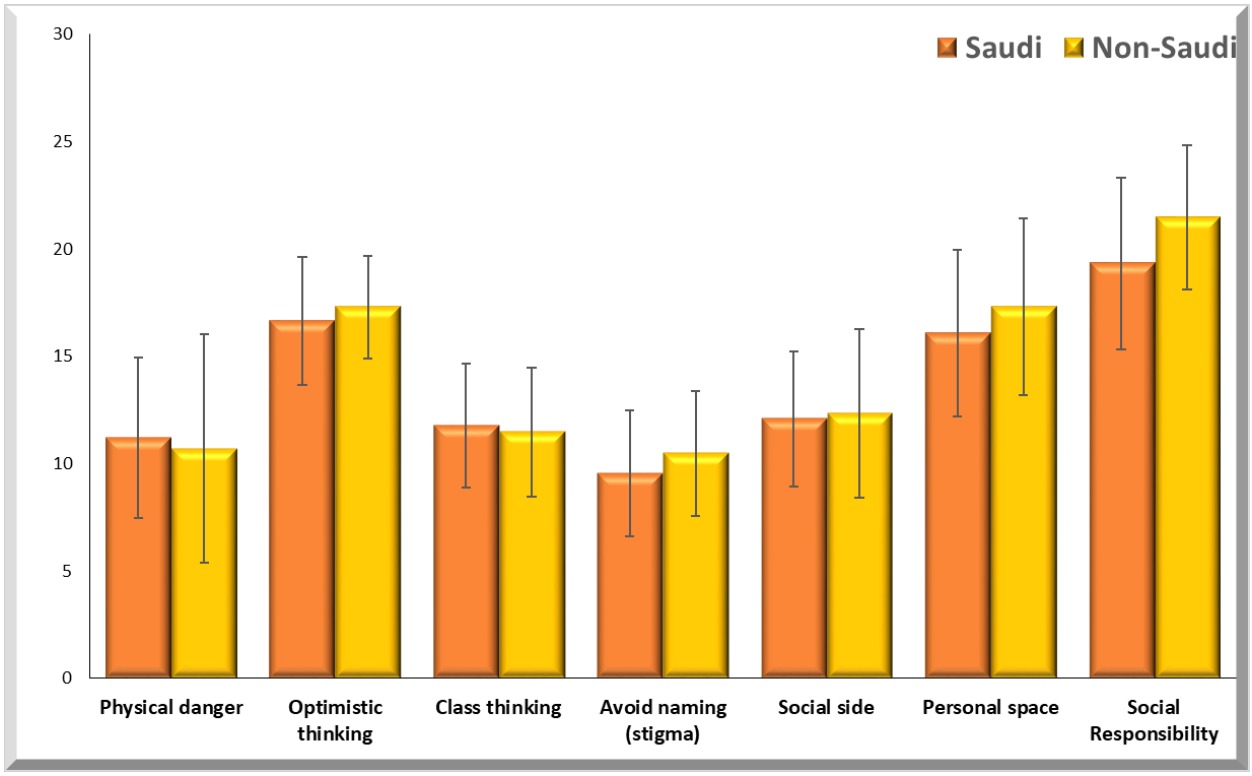

Figure 4. The Correlations between socio demographic (Nationality) and the ATSMI-AV

Table 7. The Correlations between personal space, social responsibility and the ATSMI-AV

Correlations				
	Personal space		Social Responsibility	
	r	P-value	r	P-value
Physical danger	-0.556	<0.001*	-0.164	0.001*
Optimistic thinking	0.053	0.294	0.309	<0.001*
Class thinking	-0.322	<0.001*	-0.010	0.849
Avoid naming (stigma)	-0.474	<0.001*	-0.065	0.199
Social side	-0.336	<0.001*	0.014	0.788

Table 7 show that is a significant relation between Personal space and Respectively Physical danger, Class thinking, Avoid naming (stigma), Social side where Respectively (P-value=0.001) and (r=-0.556, -0.322, -0.474, -0.336) while no significant relation between Personal space and Optimistic thinking where (P-value=0.294) (less than significant level 0.05) and (r=0.053). While show that is a significant relation between Social Responsibility and Respectively Physical danger, Optimistic thinking where Respectively (P-value=0.001, <0.001) and (r=-0.164, -0.309) while no significant relation between Social Responsibility and Class thinking, Avoid naming (stigma), Social side where Respectively (P-value=0.849, 0.199, 0788) (less than significant level 0.05) and Respectively (r=-0.010, -0.065, 0.014).

4. Discussion

Overall, a large proportion of the participants appear to have misconceptions towards mental illness. The ATSMI-AV yielded five factors, 'physical threat', 'wishful thinking', 'social concern', 'label avoidance' and 'categorical thinking'. the Social Tolerance Scale yielded two factors, 'social distance' and 'social responsibility' though the items in each factor was not exactly the same as that used by Koller et al. [25] Significant associations were found between subscale factors and socio-demographic factors. The socio-demographic data of the sample is shown. The Mean+ SD age of the sample was (16.923±1.582). Regarding of age was (13-32) and regarding the gender were 225 (57.7%) participants were male while females was (42.3%). most of the sample is shown secondary education was (89.2%) while preparatory was (10.8%) most of participant were Saudi nationality was (95.6%) (See Table 1). The majority of the Adolescent's impression of mental illness is the optimistic thinking were increase in high than Average and low, where (80.0%) and the ranged from 4 to 20 by mean+ SD (16.667±2.958) and measure of social acceptance towards mental illness show the majority of the Participants answer is Social Responsibility were increase in high (See Table 2).

This study were identical to those 'Social construction/ concern' was also the same except for one item 'I sometimes worry that I may have a mental illness' which did not load onto any factor in the analysis. Two separate factors were related to threat in the sample ('physical threat' and 'label avoidance') though the items fell under a single overarching factor of threat The remaining items in the out of control and categorical thinking factors in the study by Watson et al [26] were combined into one factor in this sample as 'categorical thinking'. A significant relation between age and Physical danger, Class thinking, Personal space where respectively (P-value=0.032, 0.000, 0.029) and r respectively (0.108, 0.183.) (See Table 3). This study Similar that suggested by Koller. The Social also produced a slightly different factor structure from the authors suggested seven items for social distance and four

for social responsibility. The two factors found in our analysis were similar except for one item ('I would visit a classmate in hospital if they had a mental illness') which loaded onto the 'social responsibility' factor instead of 'social distance', unlike the findings by Koller et al [25]. A significant relation between gender and all item of ATSMI-AV where Respectively (P-value=0.002, <0.001, 0.029), while no significant relation between gender and Personal space (P-value=0.473). Also a significant relation between Level of education and Physical danger, Class thinking, Avoid naming (stigma), Personal space where Respectively (P-value=0.002, <0.001, 0.002, 0.036, <0.001) (See Table 4, Table 5). The gender differences for ATSMI-AV subscales in our sample were different to those found they found that boys scored higher on threat, a finding that was not replicated here. However, female in our sample did endorse more 'categorical thinking' and Watson et al [26] males also scored lower for 'social responsibility' than females, suggesting they were less likely to endorse supportive action towards the mentally ill. Conversely, females showed more 'social concern' and 'wishful thinking' than males. Ng and Chan's [27] study on Hong Kong secondary school students revealed similar findings with females showing higher benevolence towards the mentally ill and males showing more stereotyping, restrictive, pessimistic and stigmatizing attitudes towards mental illness. Female adults in Singapore also scored lower for stigma in previous nationwide studies. [28]

A significant relation between Nationality and Social Responsibility where (P-value=0.03) and (T=-2.184) while no significant relation between Nationality and all items of ATSMI-AV while Non-Saudi students had higher for contact with mentally ill individuals compared with Saudi students. (See Table 6, Table 7)

Some of these findings are similar to those found in the adult population [23] where Indian and Malay participants scored lower on a social distance measure despite having higher personal stigma. Becker et al [28] found that individuals from minority ethnic groups are less likely to support prejudicial attitudes about mental illness.

5. Conclusion

Overall, a significant proportion of Saudi youth report having little education about mental health which could explain the stigma endorsed by the sample.

There has been remarkable progress in the recognition and treatment of mental health disorders over the past 60 years in Saudi Arabia, especially in the last two decades. The mental health system is making long strides toward addressing the mental health needs of its people. There is still a way to go in extending care to the entire population in developing training programs in Saudi medical centers and academic institutions particularly fellowship training in psychiatry subspecialties, and in conducting research to guide ef-forts to modernize the mental health care system. There are now plans to systematize, standardize, and expand mental health services across the country and to develop specialty training programs in every area, from child- adolescent to geriatric to addictions to consultation-liaison to forensic psychiatry. However, as psychiatry moves rapidly into the 21st century in Saudi Arabia, one cannot ignore the dominating influences that culture, family, and religion continue to have on the understanding, diagnosis, and treatment of mental disorders in this country.

References

[1] United States. Public Health Service. Office of the Surgeon General, Center for Mental Health Services (US), National Institute of Mental Health (US), United States. Substance Abuse, & Mental Health Services Administration. (2001). *Mental health: Culture, race, and ethnicity: A supplement to mental health: A report of the Surgeon General* (Vol. 2). Department of Health and Human Services, US Public Health Service.

[2] Sripongwiwat, S., Bunterm, T., & Tang, K. N. (2018). An investigation of learning stressors among secondary school students: A case study in northeast Thailand. *Kasetsart Journal of Social Sciences*, *39*(2), 197-206.

[3] Wong, C., Davidson, L., Anglin, D., Link, B., Gerson, R., Malaspina, D., ... & Corcoran, C. (2009). Stigma in families of individuals in early stages of psychotic illness: family stigma and early psychosis. *Early Intervention in Psychiatry*, *3*(2), 108-115.

[4] Courtenay, W. H. (2000). Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social science & medicine*, *50*(10), 1385-1401.

[5] Totsika, V., Hastings, R. P., Emerson, E., Lancaster, G. A., & Berridge, D. M. (2011). A population-based investigation of behavioural and emotional problems and maternal mental health: Associations with autism spectrum disorder and intellectual disability. *Journal of Child Psychology and Psychiatry*, *52*(1), 91-99.

[6] Sewilam, A. M., Watson, A. M., Kassem, A. M., Clifton, S., McDonald, M. C., Lipski, R., ... & Nimgaonkar, V. L. (2015). Suggested avenues to reduce the stigma of mental illness in the Middle East. *International Journal of Social Psychiatry*, *61*(2), 111-120.

[7] Del Casale, A., Manfredi, G., Kotzalidis, G. D., Serata, D., Rapinesi, C., Caccia, F., ... & Tamorri, S. M. (2013). Awareness and education on mental disorders in teenagers reduce stigma for mental illness: a preliminary study. *Journal of Psychopathology*, *19*(3), 208-212.

[8] Goffman, E. (2009). *Stigma: Notes on the management of spoiled identity*. Simon and Schuster.

[9] Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual review of Sociology*, *27*(1), 363-385.

[10] Sartawi, A., AlMuhairy, O., & Abdat, R. (2011). Behavioral problems among students with disabilities in United Arab Emirates. *International Journal for Research in Education*, *29*, 1-5.

[11] Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

[12] Aromaa, E., Tolvanen, A., Tuulari, J., & Wahlbeck, K. (2011). Predictors of stigmatizing attitudes towards people with mental disorders in a general population in Finland. *Nordic journal of psychiatry*, *65*(2), 125-132.

[13] Kurtek, P. (2018). Prosocial vs antisocial coping and general life satisfaction of youth with mild intellectual disability. *Journal of intellectual disability Research*, *62*(6), 581-592.

[14] Manago, B. (2015). Understanding the social norms, attitudes, beliefs, and behaviors toward mental illness in The United States. *Proc. Natl. Acad. Sci*, *170042*.

[15] Dekker, M. C., Koot, H. M., Ende, J. V. D., & Verhulst, F. C. (2002). Emotional and behavioral problems in children and adolescents with and without intellectual disability. *Journal of Child Psychology and Psychiatry*, *43*(8), 1087-1098.

[16] Perlick, D. A., Rosenheck, R. A., Clarkin, J. F., Sirey, J. A., Salahi, J., Struening, E. L., & Link, B. G. (2001). Stigma as a barrier to recovery: adverse effects of perceived stigma on social adaptation of persons diagnosed with bipolar affective disorder. *Psychiatric services*, *52*(12), 1627-1632.

[17] Pang, S., Liu, J., Mahesh, M., Chua, B. Y., Shahwan, S., Lee, S. P., ... & Subramaniam, M. (2017). Stigma among Singaporean youth: a cross-sectional study on adolescent attitudes towards serious mental illness and social tolerance in a multiethnic population. *BMJ open*, *7*(10), e016432.

[18] Smith, V., Reddy, J., Foster, K., Asbury, E. T., & Brooks, J. (2011). Public perceptions, knowledge and stigma towards people with schizophrenia. *Journal of Public Mental Health*.

[19] Sartorius, N., & Schulze, H. (2005). *Reducing the stigma of mental illness: a report from a global association*. Cambridge University Press.

[20] Hansson, L., Stjernswärd, S., & Svensson, B. (2016). Changes in attitudes, intended behaviour, and mental health literacy in the Swedish population 2009-2014: an evaluation of a national antistigma programme. *Acta Psychiatrica Scandinavica*, *134*, 71-79.

[21] Smith, B. (2015). Mental illness stigma in the media. *The Review: A Journal of Undergraduate Student Research*, *16*(1), 50-63.

[22] Lowder, D. M. (2007). *Examining the stigma of mental illness across the lifespan* (Doctoral dissertation, University of North Carolina Wilmington).

[23] Becker, S., Al Zaid, K., & Al Faris, E. (2002). Screening for somatization and depression in Saudi Arabia: a validation study of the PHQ in primary care. The International Journal of Psychiatry in Medicine, 32(3), 271-283.

[24] Watson, A. C., Miller, F. E., & Lyons, J. S. (2005). Adolescent attitudes toward serious mental illness. *The Journal of Nervous and Mental Disease*, *193*(11), 769-772.

[25] Koller, M., Chen, S. P., Ledoux-Moshonas, J., D'Alessio, A., DesLauriers, J., & Stuart, H. (2013). *Opening Minds in High School: Results of a Contact-Based Anti-Stigma Intervention*. Mental Health Commission of Canada.

[26] Watson, A. C., Miller, F. E., & Lyons, J. S. (2005). Adolescent attitudes toward serious mental illness. *The Journal of Nervous and Mental Disease*, *193*(11), 769-772.

[27] Ng, P., & Chan, K. F. (2000). Sex differences in opinion towards mental illness of secondary school students in Hong Kong. *International Journal of Social Psychiatry*, *46*(2), 79-88.

[28] Subramaniam, M., Abdin, E., Picco, L., Pang, S., Shafie, S., Vaingankar, J. A., ... & Chong, S. A. (2017). Stigma towards people with mental disorders and its components-a perspective from multi-ethnic Singapore. *Epidemiology and psychiatric sciences*, *26*(4), 371-382.