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# **Original Article**

# Understanding of School Related Factors Associated with Emotional Health and Bullying Behavior among Jordanian Adolescents

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#### **Abstract**

**Background:** Students emotional health and bullying behavior are receiving greater attention worldwide due to their long-term effects on students' health. The purpose of this study was to examine the relationships between perceived school climate, peer support, teacher support, school pressure and emotional health and bullying among adolescent school students in Jordan.

**Methods:** A cross-sectional descriptive design was used to recruit a sample of 1166 in-school adolescents in Amman between November 2013 and January 2014. A multi-stage cluster sampling technique was used to select respondents and Health Behavior in School Aged Children questionnaire was used to collect the data. Data were analyzed using Pearson Correlation to detect relationships among study variables.

**Results:** Significant correlations (P value was  $\leq$ .05) were found between school climate including teacher and peer support and emotional health and bullying behavior of school students. School pressure was not correlated significantly with emotional health and bullying.

**Conclusion:** Study findings emphasize the importance of school related factors in influencing students' emotional health and bullying behavior. This indicates that the issue of bullying and emotional health of students in Jordanian schools requires further attention, both for future research and preventive intervention.

Keywords: Bullying, Emotional health, School climate, School pressure, Jordan

### Introduction

Emotional health is a state of emotional and psychological wellbeing in which the individual perceives his surroundings realistically, copes with routine stressors of life, is capable of interacting with others, realizes his potentials, and functions fruitfully (1). According to World Health Organization Statistics, more than 450 million people suffer from mental disorders (2). In addition, at least 20% of adolescents will experience some form of mental illness such as depression, suicidal

behaviors or eating disorders (3). These disorders usually begin in adolescence and continue during adulthood (4, 5).

Emotional health is strongly associated with bullying behavior. Students involved in bullying behavior in schools whether as bullies (who bullied other schoolmates, but were not bullied) or as victims (who were bullied, but did not bully) or as bully victims (who both bullied and were bullied) reported more emotional impairment and psycho-

somatic symptoms than students not involved in bullying behavior (6-13). Bullying effect on adolescents extends into adulthood. Those who were victims of bullying are at increased risk of poor health, wealth, and social relationships outcomes in adulthood (14).

School climate refers to the quality and character of school life. School climate research suggested that there are several characteristics associated with positive perception of school climate such as safety and belonging, student participation and responsibility in the school life, and relationships to teachers and peers (15). School climate and school pressure have been found to be predictive of emotional health and the incidence of bullying (16-18). School pressure(student feeling of great pressure to achieve due to un realistic expectations form teachers or parents) and negative perception of school climate (sense of belonging to school, perception of safety, fairness of rules, participation in making rules, feeling about school) found to be associated with negative emotional health and higher incident of bullying (16-20). Interpersonal relationships with teachers and peers are part of the psychosocial school climate that affects students' emotional health. Supportive relationships at school from teachers and peers are associated with better emotional health and lower incidence of bullying (11, 16, 17, 21-26).

Emotional health is an important concern all over the world. The previous research studies suggested that schools, emotional health, and bullying could be related. However, the relationships between schools, emotional health, and bullying need more investigation in Jordan. Therefore, the purpose of the current study was to examine the relationships between perceived school climate, school pressure and emotional health and bullying among adolescent school students in Jordan.

The study will answer the following research questions:

1. What is the relationship between school related factors including (school climate, school pressure, peer support, teacher support) and student emotional health?

- 2. What is the relationship between school related factors including (school climate, school pressure, peer support, teacher support) and student bullying behavior?
- 3. What is the relationship between student emotional health and bullying behavior?

### Materials and Methods

In this cross sectional study, 1166 in-school adolescents in Amman from 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> grades were selected from five public and two private schools. A three-stage cluster sampling technique was used to draw the study sample. At the first level, the researcher selected school directorate that represent the public and private sectors of education randomly. Then the researcher randomly selected schools within each directorate from a list of schools that are available online by the Ministry of Education (27). Finally, within each selected school the researcher chose a class from each of the 6<sup>th</sup> through 10<sup>th</sup> grades randomly.

# Human subject approval statement

Ethical approval was obtained from the Research committee at the faculty of nursing, the Research Ethical Committee at the Deanship of Academic Research at the University of Jordan, and the Ministry of Education Ethical Committee. The informed consent of the parents or legal guardians was obtained prior to data collection. A written assent was obtained from the students as well. Additionally, the school counselor accompanied researchers during data collection process to alleviate any potential psychological harm that may result from answering any of the instrument questions. Data were collected from November 2013 through January 2014 using self-administered questionnaire. Administration of the questionnaire took place in the school classroom filled within the class period for all selected classes in the same day.

The Health Behavior in School Aged Children (HBSC) questionnaire was used in this cross-sec-

tional study. The HBSC questionnaire found to be a valid and reliable measure of adolescents health behavior (28-30). The HBSC study conceptualizes adolescent health in multidimensional manner and creates measures that represent students' emotional health and wellbeing (31). A committee of experts in community health nursing reviewed the translated questionnaire, performed back translation, validated its content, and checked its appropriateness to Jordanian culture.

The questionnaire consists of two sections core and special foci. The core contains: selected demographic questions (age, gender, family structure, father's and mother's occupation), behavioral questions relevant to major health problems (dental hygiene, eating habits, and physical activity), psychosocial aspects of health, psychosomatic complaints and subjective health. The special focus questions are on the health-related aspects of school. All the subscales used in this study are derived from the HBSC questionnaire.

The school climate scale (with scores ranging from 6 to 30) was derived from six items, including "Our school is a nice place to be" and "I feel I belong at this school." The internal consistency (Cronbach's a) for this scale was 0.76 in our study. The school pressure scale (with scores ranging from 4 to 20) consisted of four items. A sample item for this scale was "My parents expect too much of me at school." The internal consistency for this scale was low 0.44. This low consistency in the scale could be due to different response of our students to excess pressure from teachers and parents.

Two scales were created to measure two types of school support. The peer support scale consisted of three items (with scores ranging from 3 to 15) and had an overall internal consistency of 0.73. The teacher support scale consisted of four items (with scores ranging from 4 to 20) and had an internal consistency of 0.80.

Two scales were used to measure emotional health. The first scale, "emotional well-being," consisted of five items with an internal consistency of 0.62. An example of an emotional well-being item was "In general, how do you feel about your life at present?" The second scale, "psycho-

somatic symptoms," was derived from eight items asking about the exhibition of a range of symptoms such as headache in the last six months. This scale had internal consistency of 0.76. Two items were used to measure bullying behaviors. Both items asked how often the student had engaged in bullying during the school term, one item as a victim and one item as a perpetrator. The items were scored from "1" being "never" to "5" being "several times a week." These items have been developed and validated by Olweus (32, 33).

# Statistical Analysis

Statistical Package for Social Sciences (SPSS, version 17) was used in our data analysis. In total, 1166 questionnaires were eligible for analysis. Twenty questionnaires (1.7%) were incomplete and excluded from the final analysis. Descriptive statistics (Percentage, mean, standard deviation minimum, maximum) were used to describe demographic characteristics of study sample. Pearson correlation was used to examine the association between the following variables, school climate, school pressure, peer support, teacher support, emotional wellbeing, psychosomatic symptoms, and bullying behavior. Findings were considered statistically significant if the *P* value was ≤.05 (34).

### Results

Description of characteristics of the study participants (n=1166) (Table 1) considered school students of 11 to 16 years and more of old. About 72% of students clustered at 13 to 15 years of old and 52.7% were girls (n=614) and 47.3% were boys (n=552). According to participants' characteristics, majority of participants' mothers (93.1%, n=879) were educated and 38% (n=364) of participants' fathers were having Bachelor education. About 59% (n=662) of participants' fathers were full time employees and performing professional work while almost 65.9% (n=754) of participants' mothers were housewives.

Among Jordanian school students, understanding students' emotional health (measured by emotional wellbeing and psychosomatic symptoms) and bullying behavior has been shown in relation to school climate, school pressure, peer support, and teacher support. Descriptively, students had similar school related influences in terms of school climate  $(57.6\pm19)$ , school pressure  $(54.3\pm16.1)$ , and teacher support  $(54.2\pm21.1)$ . Emotional wellbeing elucidate only 43.3 index

which sustain mild emotional support of students at school age. Further, substantial (37.5±18.6) bullying behavior has been reported among Jordanian students (See Table 2). Alongside with mild emotional support, results also denote experienced psychosomatic symptoms (73.9±18.6) among Jordanian students.

**Table 1:** Description of the participants (n=11166)

| Variables                    | Frequency | Percentage |
|------------------------------|-----------|------------|
| Gender                       |           |            |
| Boys                         | 552       | 47.3       |
| Girls                        | 614       | 52.7       |
| Age                          |           |            |
| 11 years                     | 72        | 6.2        |
| 12 years                     | 184       | 15.8       |
| 13 Years                     | 259       | 22.2       |
| 14 Years                     | 283       | 24.3       |
| 15 Years                     | 302       | 25.9       |
| 16 Years and More            | 66        | 5.7        |
| Mother's Education (N= 943)  |           |            |
| Haven't High School          | 64        | 6.8        |
| High school                  | 263       | 27.9       |
| Diploma                      | 228       | 24.1       |
| Bachelor                     | 296       | 31.4       |
| Master / PhD                 | 92        | 9.7        |
| Father's Education (N=957)   |           |            |
| Haven't High School          | 66        | 6.9        |
| High school                  | 150       | 15.7       |
| Diploma                      | 152       | 15.9       |
| Bachelor                     | 364       | 38.0       |
| Master / PhD                 | 225       | 23.5       |
| Father's Occupation (N=1119) |           |            |
| Un employed                  | 19        | 1.7        |
| Retired                      | 97        | 8.7        |
| Full time employee           | 391       | 34.9       |
| Professional Practice        | 271       | 24.2       |
| Military                     | 59        | 5.2        |
| Free Work                    | 282       | 25.2       |
| Mother's Occupation          |           |            |
| House Wife                   | 754       | 65.9       |
| Retired                      | 73        | 6.4        |
| Full time employee           | 257       | 22.5       |
| Professional Practice        | 41        | 3.6        |
| Military                     | 1         | 0.1        |
| Free Work                    | 17        | 1.5        |

**Table 2:** Description of school related variables and student's emotional health (emotional wellbeing and psychosomatic symptoms) and bullying behavior (n=1166)

| Variables              | Mean | SD    | Range    | Median |
|------------------------|------|-------|----------|--------|
| School climate         | 57.6 | 19.05 | 20.6-100 | 55.1   |
| School pressure        | 54.3 | 16.1  | 21-100   | 52.6   |
| Peer support           | 43.9 | 19.9  | 20-100   | 40     |
| Teacher support        | 54.2 | 21.1  | 20-100   | 50     |
| Emotional wellbeing    | 43.1 | 15.2  | 21-100   | 39.1   |
| Psychosomatic symptoms | 73.9 | 16.3  | 20-100   | 75     |
| Bullying behavior      | 37.5 | 18.6  | 20-100   | 30     |

**Table 3:** The relationships between school related factors and student's emotional health (Emotional wellbeing and psychosomatic symptoms) and bullying behavior (n=1166)

| Variables  | School climate | School pressure | Teacher   | Peer support | Emotional | Bullying  |
|--|----------------|-----------------|-----------|--------------|-----------|-----------|
|  |                |                 | support   |              | wellbeing | behavior  |
| Emotional Wellbeing  | 0.207**        | 0.055           | 0.225**   | 0.355**      |           | 0.183**   |
| , and the second se | (P<0.001)      |                 | (P=0.001) | (P<0.001)    |           | (P<0.001) |
| Bullying behavior  | 0.257**        | 0.029           | 0.243**   | 0.228**      | 0.183**   |           |
|  | (P<0.001)      |                 | (P<0.001) | (P<0.001)    | (P<0.001) |           |
| Psychosomatic symptoms   | 0.15**         | 0.15**          | 0.12**    | 0.04         | -0.46**   | 0.096**   |
|  | (P<0.001)      | (P<0.001)       | (P<0.001) | (P<0.14)     | (P<0.001) | (P<0.01)  |

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed) using Pearson correlation

This section answers the study questions whether there is a relationship between schools in terms of school climate, school pressure, peer support, and teacher support and emotional health and bullying behavior (Table 3). Data were analyzed using Pearson correlation coefficient and categorized according to Munro (35) who classified a correlation of 0.00-0.25 little, 0.26-0.49 low, 0.50-0.69 moderate, 0.70-0.89 high, and 0.90-1.00 very high. Data revealed significant (P<0.001) correlations between the aforementioned variables. The significant correlation emphasizes the importance of understanding school related factors influence students' emotional health and bullying behavior. Whilst school climate, teacher support, and peer support were having a relatively low significant correlation (r=0.20, r=0.22, r=0.35 respectively), school pressure had no influential relationship with emotional wellbeing. Surprisingly, in examining the relationship between psychosomatic symptoms as dependent variable and school related factors, results revealed little significant correlation between school climate, school pressure, and teacher support (r=0.15, r=0.15, r=0.12 respectively) and psychosomatic symptoms compared to no specific correlation found in relation to peer support.

Similarly, the same variables were significantly correlated with bullying behavior. Results revealed that school climate, teacher support, and peer support were having relatively little correlation (r=0.25, r=0.24, r=0.22 respectively) with bullying behavior. Again, school pressure was not correlated significantly with bullying behavior.

Additional finding was a significant (P<0.001) relationship found between students' emotional wellbeing and psychosomatic symptoms and bullying behavior (r=0.18, r=0.096) which denotes consistent effects between these variables.

### Discussion

This study indicates that emotional health of students is associated with perception of school climate and bullying behavior. Data revealed significant (*P*<0.001) correlations between school related factors (school climate, peer support, and teacher support), and emotional health and bully-

ing behavior among adolescent students of Jordanian schools. This is congruent with Freeman (16) who found that students, who reported a more positive school climate, whether accompanied by high or low levels of school pressure, are more likely to report better emotional wellbeing and lower psychosomatic symptoms. Of more interest, school pressure was not correlated significantly with emotional wellbeing and bullying behavior. This suggests that student's perceptions of a more positive school climate did not seem to alter the relationships between high school pressure and their emotional health and/or bullying behavior. These relationships between school pressure, emotional health and bullying behavior seemed to be relatively inconsistent with previous studies in Norway (26, 36), Poland (37), and Sweden (38) which have reported conclusive evidence linking the negative effects of increased school pressure on emotional health. However, we should bear in mind the relatively low internal consistency of the school pressure subscale used in this study 0.44 which is likely to mask the actual association between school pressure and student's emotional wellbeing and bullving.

Nevertheless, the findings of this study do not extend such previous findings across Norway, Sweden, and Poland, our finding support a Canadian study (39) which revealed a limited influence of school pressure on both student's emotional health and their bullying behavior. It is suggested that school support does have an association with school climate and pressure and therefore create the noted relationships between the above-mentioned variables, however, it is challenging to define the specific process that links school climate and school pressure to emotional health and bullying. Significantly, it remains well documented that school support is connected to both emotional health and bullying (11, 16, 17, 21-26).

A further finding can be found in this study that those students, who generally reported positive perception to their school climate, also reported having higher levels of emotional wellbeing and reported being less involved with bullying behavior than other students report. The significant relation that emerged may be useful for developing

interventions targeting the students as well as their school environment. For example, the stronger relationship between emotional wellbeing and bullying behavior observed in this study suggest that bullied students reported low emotional wellbeing and negative perception to their school environment than uninvolved students. This is consistent with previous studies (16-20). Whereas, the lack of a relationship between emotional wellbeing and school pressure could indicate that school pressure is less likely to influence student's wellbeing. In this study, the significant correlation between bullying and emotional health suggested that bullied students reported complaints that are more psychosomatic and reported frequent tiredness, nervousness, sleeping problems and dizziness than none involved students. This is highlighting the importance of preventive intervention research targeting bullying behaviors not only among students but also among their teachers as well. Given the limited scope of the tool and the exploratory nature of this study, we could not identify the nature of bullying behavior among those students. To further understand the social and environmental factors associated with the student's bullying at the schools of Jordan, further studies and interventional programs are needed to understand the bullying behaviors and then to create a healthy school and social environments that are intolerant with bullying.

In line with school-based interventions used in Norway (32) and England (40) we argue that the schools of Jordan are in urgent need for a national awareness and effort toward establishing school-based interventions that target the school environment and aims to increase teachers and parents' awareness about bullying. Bullied students identified are in further needs for a safe environment and for support as well as protection. Given the significance of this issue and the potential long-term negative outcomes for the bullied students, the issue of bullying and emotional health of students in Jordan's school merits serious attention, both for future research and preventive intervention.

### Limitations

Finally, a number of limitations should be noted related with this study. First, the broadly focused aspect of The HBSC in terms of health behaviors assessment in students, as well as the lack of psychometric analysis for the Arabic version of the HSBC. Another limitation is the fact that this study was cross-sectional and included only middle— and high school—aged students; therefore, data related to elementary school students are lacked.

### Conclusion

This study informs policy makers, health professionals, parents, teachers and school administrators of the value that a positive school climate has on students' emotional health and bullying behavior. Students, who reported positive perception to their school climate, also reported having better emotional health and reported being less involved with bullying behavior than other students. This highlighting the significance of developing school-based intervention programs targeting school environment and bullying behavior. Efforts should be made to develop school polices that enhance students emotional wellbeing and prevent bullying. School counselors' efforts should be increased to spread the awareness about the prevalence and the long negative consequences of poor emotional health and bullying, not only for teachers but also for students and their parents as well.

### **Ethical considerations**

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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### Appendix A

### Items of Subscales used in the Study

Perceived School Climate (a = .76)

- How do you feel about school at present?
- In our school the students take part in making rules.
- The rules in this school are fair.
- Our school is a nice place to be.
- I feel I belong at this school.
- Do you feel safe at school?

#### School Pressure (a = .44)

- How pressured do you feel by the schoolwork you have to do?
- The students are treated too severely/strictly in this school.
- My parents expect too much of me at school.
- My teachers expect too much of me at school.

#### Peer Support (a = .73)

- The students in my class (es) enjoy being together.
- Most of the students in my class (es) are kind and helpful.
- Other students accept me as I am.

#### Teacher Support (a = .80)

- I am encouraged to express my own views in my class (es).
- Our teachers treat us fairly.
- When I need extra help, I can get it.
- My teachers are interested in me as a person.

## Emotional Well-being (a = .62)

- In general, how do you feel about your life at present?
- Do you ever feel lonely?
- How often do you feel left out of things?
- How often do you feel helpless?
- How often do you feel confident in yourself?

### Psychosomatic Symptoms (a = .76)

- In the last 6 months, how often have you had a headache?
- In the last 6 months, how often have you had a stomachache?
- In the last 6 months, how often have you had a back-ache?
- In the last 6 months, how often have you felt low?
- In the last 6 months, how often have you felt irritable or had

#### a bad temper:

- In the last 6 months, how often have you felt nervous?
- In the last 6 months, how often have you had difficulties getting to sleep?
- In the last 6 months, how often have you felt dizzy?

### **Bullying Behavior**

- How often have you been bullied in school this term?
- How often have you take part in bullying other students in school this term?

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