

## Social Support, Self-Control, Religiousness and Engagement in High Risk-Behaviors among Adolescents

Qutaiba Agbaria<sup>1\*</sup>, Denise Ziya Berte<sup>2</sup>, Fayez Azez Mahamid<sup>3</sup>

### ABSTRACT

This research explored links between social support, self-control, religiousness and engagement in risk-behaviors among adolescents in Palestine. Results found that higher scores on social support correlated with lower scores on risk behaviors, while higher levels of self-control were correlated with lower scores on specific behaviors including drinking, smoking and drug use. Higher scores on religiousness were correlated with lower levels of drinking, drug use and premature sexual activity. While the parameters of the factors must be discovered, the implications of these findings for research are ample and include not only the mechanism of the relationships but how to enhance the protective factors in potentially disenfranchised youth in Palestine.

**Keywords:** *Social Support, Self-Control, Religiosity, High Risk Behaviors, Palestine*

Working from the prism of positive psychology, a growing body of research has aimed recently to examine personal resources that can enhance people's subjective well-being (Wood & Tarrier, 2010; Wood, Linley, Maltby, Kashdan, & Hurling, 2010), and lessen their tendency to engage in risk-behaviors (Wils, Walker, Mendoza, & AINETTE, 2006).

Risk taking has received significant empirical attention scholarly analyses, and policy debate as it effects not only the individual but society at large. The association between risky behaviors and serious health consequences further justify attention (DiClemente, Hansen, & Ponton, 1995).

Although risk taking can be either adaptive or maladaptive, most research focuses on behaviors whose benefits are minimal and have far less potential to occur than their significant and more likely negative outcomes (Byrnes, Miller, & Schafer 1999). Behaviors that fall under this category include, but are not limited to, careless driving habits, drug use,

<sup>1</sup> Assistant professor, Psychology and Counseling Department, An- Najah National University, Palestine

<sup>2</sup> Assistant professor, An- Najah Child Institute, An- Najah National University, Palestine

<sup>3</sup> Assistant professor, Psychology and Counseling Department, An- Najah National University, Palestine

\*Responding Author

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early or unprotected sex, violence and delinquency (Arnett, 1992). Data consistently demonstrates that adolescents engage in risk-behaviors more than any other age group (CDC, 2008).

Previous studies have demonstrated positive associations between higher levels of social support, self-control and religiousness and lower tendencies to engage in risk-behaviors. The current study examines these associations in a sample of Palestinian adolescents.

### ***Risk-behaviors among Palestinian adolescence***

According to previous findings approximately 25% of adolescents in Palestine reported cigarette-smoking with 8% smoking at least once a week (among males 15 years of age 17% smoke weekly). 4.7% report smoking at least once a day, however among 10<sup>th</sup> grade students the rate raises to 12%. About 38% of Palestinian teenagers report smoking hookah, 10% at least once a week at least and 3% daily (Harael et al., 2004).

In exploring alcohol consumption 17% of Palestinian adolescents with Israeli citizenship report to drinking at least one monthly (this is a unique finding to those residing outside of the Palestinian Territories where alcohol access is minimal). This rate increases with age and reaches 29% of the Palestinian males at the age of 15. Further 22% of males and 4% of females in the sample reported drinking to intoxication level at least once by the age of 15 (Harael et al., 2004).

Researchers have examined correlates of high-risk sexual behaviors with substance use among African-American adolescents. High-risk sexual behaviors were defined as sexual activity without a condom, having multiple partners, frequent sexual activity, or sex with a high-risk partner including prostitutes and intravenous drug users. Consistent results indicated that adolescents were more likely to engage in high-risk sexual behavior when they were engaging in other forms of problem behaviors including school delinquency, violence, etc. (Donenberg, Wilson, Emerson & Bryant, 2002).

Motivational, affective and cognition have all been suggested as important factors in understanding the engagement in high risk behaviors. Distinguishing between benefits attained from engagement in risky behaviors (a positive or pleasurable experience), and cost (occasional negative or painful experiences) must be calculated from an adolescent developmental perspective including the benefits of peer support, religiosity, self control and well being ( Abu-Raiya & Agbaria, 2015; Agbaria, 2013; Agbaria, 2014a, 2014b; Agbaria, Hamama, Orkibi, Fried & Ronen, 2016; Agbaria & Daher, 2015; Fried, Ronen, Agbaria, Orkibi & Hamama, 2015).

Studies exploring the affective aspect of risk-taking for adolescents found that involvement in high risk behaviors reduces or/and eliminates negative emotions that stem from problematic relations with parents, defective communication, low family coherence, low

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level of support, low school functioning and difficulties separating from the family of origin (Michael & Ben-Zur, 2007). In addition it has been found that sensation seekers (individuals who are motivated by physiologically arousing activities) demonstrate impaired ability in evaluating risks; compared to other who are low on sensation seeking, and underestimate the probability of negative consequences for their behaviors (Zuckerman, 2007).

Risk taking can also be described as a cognitive decision-making process in which the person examines alternatives based on the evaluation of gains and losses expected. Adolescents tend to assess gains and losses in a different and less accurate manner, than adults (Parsons, Siegel, & Cousins, 1997). At times, what stands behind a decision to engage in a risky behavior is a differential assessment of gains and losses, where gains are overestimated and risks underestimated (Ben-Zur & Reshef-Kfir, 2003) .

Regardless of the motivation underlying risk-taking, high risk behaviors have negative and at times destructive, consequences for the health and well-being of the individual. The question then is what factors can decrease the tendency to engage in risk behaviors?

**Self-Control:** The term self-control refers to a cognitive/ behavioral pattern where an individual evaluates and follows a behavior path based on a greater outcome than their momentary desire (Thoresen & Mahoney, 1974). This definition includes two elements free will to say the behavioral option is chosen consciously and deliberately because of its perceived importance and not because of an external pressure or lack of alternatives and choice evident by having more than one option (Ronen & Seeman, 1997).

Rosenbaum (1998) defines self-control as a system of cognitive, task-oriented skills that enables individuals to act in order to attain their goals, overcome emotional, cognitive and behavioral difficulties, postpone gratification and cope with stress. According to Ronen and Rosenbaum (2001), self-control skills are used when people face obstacles which are difficult to overcome and adversely impact their ability to achieve their goals. Self-control skills include cognition (i.e. instructions to self, problem-solving strategies); the ability to postpone gratification and; the ability to deal effectively with external and internal stressors (Rosenbaum, 1980).

A number of studies conducted among children and adolescents revealed that those with more developed self-control skills were less prone to behave in an aggressive manner (Blair, Denham, Kochanoff & Whipple, 2004; Gyurak & Ayduk, 2008; Weisbrod, 2007). Self-control skills were also associated with success in social relationships, adaptive emotional responses to stressful situations, and less self-reported psychopathology (Agbaria, Ronen & Hamama, 2012; Hamama, Ronen & Rahav, 2008; Walter, Gunstad & Hobfoll, 2010).

Agbaria, Ronen and Hamama (2012) examined the links between self-control and the prevalence of psychopathological symptoms among adolescents after the exposure to war.

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They found that higher levels of self-control skills were linked to less levels of depression, anxiety and other psychopathological symptoms, and higher levels of subjective well-being.

In a study of the links between self-control, anxiety and loneliness, among siblings of kids diagnosed with cancer, it was found that those who reported higher levels of self-control skills reported lower levels of anxiety and loneliness (Hamama, Ronen, & Feigin, 2009).

Some studies have demonstrated negative links between self-control/self-regulation and engagement in risk behaviors. Laird, Marks and Marrero (2010) found that low self-control was associated with more antisocial and rule breaking behavior.

**Religiousness:** Religious beliefs and practices are widespread and play a central role in the lives of many people in almost all societies and cultures around the globe (Pargament & Abu-Raiya, 2007). Yet, although religion plays a pivotal role in people's lives, mainstream psychology has almost ignored this phenomenon (Al-Issa, 2000). The relationship between religion and psychiatry or clinical psychology has been also controversial. Historically, psychologists have taken both sides in the debate on the value of religious experience (for a thorough review, see Wulff, 1997). For example, Freud (1927) viewed religious experiences from a very negative prism linking them to the repression of instincts, intrapsychic conflicts and helplessness. On the other hand, Jung (1938) suggested that religion is a source of meaning and stability in an uncertain world.

Before the 1990's, researchers did not take the relationship between religion and health seriously: they often buried religious variables in the methods and results sections of their studies (Miller & Thoresen, 2003). Recently, this picture has changed dramatically; a substantial body of research has emerged with respect to the relationship between religion and health (Abu-Raiya & Pargament, 2011; Hood, Hill & Spilka, 2009). These studies have indicated that religious beliefs and activities play a central role in the life of individuals and can be related to better functioning and well-being.

Cross-sectional and longitudinal studies have consistently found significant associations between religious attendance and health status indicators, including conditions such as hypertension, functional disability, and overall mortality (Koenig, McCullough & Larson, 2001). For example, McCullough, Hoyt, Larson, Koenig and Thoresen (2000) conducted a meta-analysis of data from 42 independent samples examining the association of a measure of religious involvement and all causes of mortality. They found that, even after controlling for a variety of potential confounding variables, religious involvement was significantly associated with lower mortality, indicating that people with higher religious involvement were more likely to be alive at a follow-up than people lower in religious involvement.

In a meta-analysis of 100 studies examining the relationship between religiousness and mental health conducted by Koenig and Larson (2001), religious beliefs and practices were related to greater life satisfaction, happiness, positive affect and higher morale in 79% of the

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studies. Of 12 prospective cohort studies identified in their meta-analysis, 10 reported a significant relationship between greater religiousness and greater well-being. Similar levels of positive association were found between religiousness and hope, optimism, purpose and meaning; of 14 studies examining these relationships, 12 reported significant positive associations among these variables and two found no association with religion.

Salutary effects of religion have also been demonstrated with other dimensions of mental health and illness, such as self-esteem and mastery (Krause & Tran, 1989) depressive symptoms (Smith, McCullough & Poll, 2003) and anxiety (Bowen, Baetz & D'Acry, 2006; Soenke, Landau & Greenberg, 2013). Overall, this literature indicates that there is a positive relationship between religious and spiritual involvement and well-being.

A serious body of research has indicated that religiousness and spirituality serve as protective factors for health related outcomes including substance use and risky sexual behavior (Abar, Carter, & Winsler, 2009; Chamrathirong et al., 2010; Laird, Marks, & Marrero, 2011; McNamara, Burns, Johnson, & McCorkle, 2010). Of 38 studies covered in a review by Benson (1992), 29 indicated a negative relationship between religiousness and alcohol use, and 26 with marijuana use.

Nonnemaker, McNeely and Blum (2003), using data from a nationally representative sample of American adolescents in grades 7–12, found that religiousness was protective against substance use (i.e., cigarettes, alcohol, and marijuana), having unprotected sex, engaging in violence and having suicidal thoughts.

Working with a representative sample of 420 pairs of parents and teens from Bangkok, Thailand, Chamrathirong et al. (2010) tested the influences of a family's spiritual beliefs and practices on substance use and sexual risk behaviors among adolescents. They found significant positive links between parents and teen's spirituality and the prevention of adolescent risk behaviors.

Mahoney et al. (2005) applied the construct of sanctification to college students' perceptions of their bodies. Using a sample of 289 college students who completed measures on the extent to which they viewed their bodies as being a manifestation of God (e.g., "My body is a temple of God") and as characterized by sacred qualities (e.g., holy, blessed, sacred), they found that greater levels of both forms of sanctification were related to higher levels of health-protective behaviors, strenuous exercise, satisfaction with one's body, and disapproval of alcohol consumption as well as to lower levels of illicit drug use, unhealthy eating practices, and alcohol consumption. Viewing the body as having sacred qualities was also related to lower rates of binge eating and illicit drug use.

The vast majority of research on the relationship between religion and health and well-being has been conducted in the United States, focused almost exclusively on Christian

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populations, and largely neglected people from other traditional faiths and different area in the world (Abu-Raiya & Pargament, 2011). Arab populations and the Middle East area have been particularly neglected. Recently, this picture has begun to change as empirical studies on the psychology of Islam have grown in number. Collectively, this emerging body of empirical research has underscored the centrality of Islam to the lives of Muslims and identified clear connections between Islamic beliefs, practices and methods of coping and the well-being of Muslims (Abdel-Khalek, 2008, 2009; Abu-Raiya, Pargament & Mahoney, 2011; Abu-Raiya, Pargament, Mahoney & Stein, 2008; Khan & Watson, 2006).

However, the body of research regarding the links between Islamic beliefs and practices and well being is still in its infancy. Further research is needed so we can broaden and deepen our understanding of the relationship between Islam and health. This study takes another step in this direction.

**Social Support:** While there is no an agreed-upon definition of the term social support it can be best defined as a complex transactional process in which an active interplay between a person and a social network is involved with positive results (Vaux,1988).

Social support takes five main forms: emotional (providing empathy, caring, love and trust), instrumental (providing actual aid in time, money, energy and needed services), appraisal (providing an evaluative feedback to others), informational (providing information, advice and suggestions) and companionship (providing a sense of belonging) (Cohen, Hettler, & Park, 1997).

Social support can develop and enhance feelings of ability, self-esteem or self-capability. Such feelings make it possible for the individual to cope successfully with life's challenges. In addition social support has an indirect effect on an individual's mental welfare, by reducing negative implications of the response to feelings of pressure (Antoucci & Akiyama, 1994; Cohen & Wills, 1985).

Social support can buffer stress by influencing both the primary and secondary appraisals of an event (Cohen & Edwards, 1989). When people perceive social support networks as accessible to them, they might suppress the appraisal that an event constitutes a potential threat, which in turn enhances their confidence in their abilities to cope successfully and effectively (Cohen & Edwards, 1989; Cohen & McKay, 1984).

Many studies examined the importance of social support for children and adolescents dealing with stressful situations. For children who face crises, the family constitutes the main social support system. In time of a crisis, a family provides feedback on feelings, ideas and behaviors, which determines the child's understanding of the nature and meaning of the stressful environment (Klingman, 2001). Besides the familial support, the support provided

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by teachers, friends and peers has a buffering effect on psychological difficulties during childhood (Klingman, 2001).

While familial support is more important during childhood, friends and non-family members become more significant sources of support during adolescence (Cotterell, 1994). Most adolescents turn to their friends more than to their parents, for the sake of fun, company and understanding (Blyth, Hill, & Thiel, 1982) and for feedback, information and emotional support (Jaffe, 1998). The peer group provides powerful social rewards such as prestige, acceptance, status and popularity which boost the adolescent's self-esteem (Bishop & Inderbitzen, 1995). Compared to those in early childhood, relationships with peer groups in adolescence are characterized with greater intimacy and support (Jaffe, 1998). These relationships have a crucial role in enhancing normal psychological development (Steinberg, 2002) and serve as a protective factor in times of stress (Montemayor & Van Komen, 1980).

Although mechanisms through which social support influences health and well-being are still not fully clear (Ganster, Fusilier, & Mayes, 1986), the findings of studies which tested the links between social support and health and well-being are pretty consistent: social support has a positive effect on one's health and well-being (Cattell, 2001; Galambos, Barker, Krahn, 2006; Sarason, Sarason, & Pierce, 1990).

Empirical studies have demonstrated also that high levels of social support predict less engagement in risk behaviors. Springer, Parcel, Baumler and Ross (2005) examined the connection between perceived parental social support and perceived social cohesion at school with some risk behaviors (physical fighting, victimization, suicidal ideation, substance use, and sexual activity) among secondary school students in El Salvador. They found that female students who perceived low parental support were significantly more likely to report engaging in all risk behaviors examined, and female students with perceptions of low school social cohesion were more likely to report suicidal ideation, binge drinking, and drug use. For males, those who reported low parental support were significantly more likely to report suicidal ideation, drug use and physical fighting, and those with low perceived school social cohesion were more likely to report physical fighting but less likely to report binge drinking.

This study examines whether social support, self-control and religiousness serve as significant predictors of engagement in risk-behaviors among Palestinian adolescents.

## **METHODOLOGY**

### *Sample*

The participants were 150 Palestinian-Muslim, secondary and high schools students. The ages of participants ranged from 10 to 15 years with a mean of 13.20 years ( $SD = 1.70$ ), 21% (10 years), 26.45% (11 years), 17.13% (12 years), 11.87% (13 years), 9.52% (14 years) and 14.03% (15 years). The majority of participants were females (58%).

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### *Instruments*

Four scales were used in this study

- 1. Life Experiences Questionnaire (LEQ).** To assess risk-behaviors, the Life Experiences Questionnaire (LEQ) (Zuckerman & Kuhlman, 2000), with necessary modifications, was used. This questionnaire measures self reported risk behaviors in six areas: alcohol use, smoking, drug use, sexual behaviors, high risk driving habits and gambling. It should be noted that participants were not asked to respond to items assessing driving behaviors as most were under age of obtaining a driving license.
- 2. Self- Control Scale.** Self-control was assessed via the Adolescence Self-Control Scale. This scale was developed originally by Rosenbaum (1980) for the purpose of estimating individual differences in self-control skills. The scale tests self reporting about the use of cognitions (such as instructions to self) and the application of problem-solving strategies, in order to cope with emotional and physiological responses. The scale was adapted for children and adolescents by Rosenbaum and Ronen (1991). It consists of 32 items that express various parameters of self-control skills: gratification postponement, overcoming pain, planning ability, use of self-instructions. Using it among a sample of adults and adolescents, Rosenbaum (1998) found the scale to possess good Cronbach's alpha coefficient ( $\alpha = .78$ ). In previous studies of Arab adolescents, Agbaria et al. (2012) found a Cronbach's coefficient of  $\alpha = .77$  for this scale while Abu-Raiya and Agbaria (under review) found it to be  $.75$ .
- 3. Interpersonal Support Evaluation list (ISEL).** *Social Support.* Social support was measured via the Interpersonal Support Evaluation List (ISEL) developed by Cohen, Mermelstein, Kamarck and Hoberman (1985). The original scale consists of 40 items, which reflect 4 dimensions of social support (Appraisal, Belonging, Tangible Support, and Self Esteem Support). The internal consistency of the ISEL in the validation study was  $\alpha = .90$ . In this study, we used a short version of this scale. This short version includes 12 items, with 4 items reflecting each of the first three dimensions mentioned above (sample item: "I feel that there is no one I can share my most private worries and fears with"). Participants responded to each item in this scale on a 4-point scale ranging from 1 (*definitely false*) to 4 (*definitely true*). Higher scores reflect greater perceived support. In previous studies of Arab populations, Agbaria et al. (2012) found a Cronbach's coefficient of  $\alpha = .78$  for this short version of the scale while Abu-Raiya and Agbaria (under review) found it to be  $.73$ .
- 4. General Religiosity Subscale.** Religiousness was assessed via the general religiosity subscale, a 31-item subscale of religiousness identified by Kendler et al. (2003) via a factor analysis in a comprehensive study on the links of religion and well-being. This dimension of religiousness reflects the person's concern and involvement with spiritual issues, including sensing his/her place within the universe and 2) his/her active involvement with God on a day-to-day basis and at times of crisis. This subscale was translated into Arabic and back-translated into English.. Some items were slightly modified, others were added and still others were omitted so the instrument become appropriate for use with Palestinian, both Muslims and Christians. Higher scores on this



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instrument reflect greater religiousness. In a previous study with Arab adolescents, Abu-Raiya and Agbaria (under review) found the Cronbach's coefficient of this scale to be .75.

### *Procedure*

The research questionnaires were distributed in four secondary and high schools. After receiving the approvals of the school's principal and parents, the primary investigator the first author and oriented each class to the issues of confidentiality. Participants voluntarily agreed to complete the survey forms.

## RESULTS

### *Descriptive statistics*

**Table No.1: Descriptive Statistics of Dependent and Independent Variables**

Variable	Mean	Standard Deviation	Potential Range	Actual Range	Cronbach's $\alpha$
Social Support	3.12	.51	1.00-4.00	1.40-4.00	.72
Religiousness	4.16	.64	1.00-5.00	1.52-5.00	.94
Self Control	.54	.93	-3.00-+3.00	-1.7-2.39	.79
Drinking	1.53	1.10	1.00-5.00	1.00-5.00	.81
Smoking	1.37	.85	1.00-5.00	1.00-5.00	.88
Drugs	1.21	.61	1.00-5.00	1.00-5.00	.87
Sex	1.32	.54	1.00-5.00	1.00-3.00	.68
Gambling	1.63	.60	1.00-5.00	1.00-4.67	.31

**Table No 2: Correlation Matrix**

Variable	Social support	Self- Control	Religiousness	Drinking	Smoking	Drugs	Sex
1	1						
2	.23**	1					
3	.156	.298**	1				
4	-.185*	.299**	-.250**	1			
5	-.215**	-.281**	-.191*	.414**	1		
6	-.173*	-.264**	-.238**	.091	.449**	1	
7	-.11	-.185*	-.226**	.065	.342**	.552**	1

\* Correlations are significant at the .01 level. \*\*

As Table 1 shows, participants scored relatively high on social support and religiousness, relatively moderate on self-control, and relatively low on all risk-behaviors. The internal consistencies of all measures ranged from adequate to high except the gambling subscale which demonstrated very low internal consistency. Hence, we eliminated this measure from further analyses.

Independent sample t-tests revealed that there were no significant differences between males and females in religiousness. However, females scored significantly higher on social support

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( $t=2.96$ ,  $p<.01$ ) and self-control ( $t=3.30$ ,  $p<.01$ ). Males, on the other hand, scored significantly higher on smoking ( $t=3.48$ ,  $p<.01$ ), drugs ( $t=1.99$ ,  $p<.05$ ), and sex ( $t=4.03$ ,  $p<.01$ ). Correlational analyses revealed that age correlated positively with religiousness ( $r = .184$ ,  $p < .05$ ).

### *Correlation analyses*

Table 2 presents a full correlation matrix containing all the study's variables (i.e., social support, self-control, religiousness, drinking, smoking, drug use, sex). As for the interrelations between the risk-behaviors, higher scores on drinking were correlated with higher scores on smoking ( $r = .414$ ,  $p < .01$ ). Higher scores on smoking were correlated with higher scores on drugs ( $r = .449$ ,  $p < .01$ ) and sex ( $r = .342$ ,  $p < .01$ ). Higher scores on drugs were correlated with higher scores on sex ( $r = .552$ ,  $p < .01$ ).

As for the relationships between the independent variables, higher scores on social support correlated with higher scores on self-control ( $r = .235$ ,  $p < .01$ ), which in turn were correlated with higher scores on religiousness ( $r = .298$ ,  $p < .01$ ).

As for the links between the independent variables and the risk-behaviors, higher scores on social support were correlated with lower scores on smoking ( $r = -.185$ ,  $p < .05$ ), drinking ( $r = -.215$ ,  $p < .01$ ) and drugs ( $r = -.173$ ,  $p < .05$ ). Higher scores on self-control were correlated with lower scores on drinking ( $r = -.299$ ,  $p < .01$ ), smoking ( $r = -.281$ ,  $p < .01$ ), drug ( $r = -.264$ ,  $p < .01$ ) and sex ( $r = -.185$ ,  $p < .01$ ). Higher scores on religiousness were correlated with lower scores on drinking ( $r = -.250$ ,  $p < .01$ ), smoking ( $r = -.191$ ,  $p < .05$ ), drugs ( $r = -.238$ ,  $p < .01$ ) and sex ( $r = -.266$ ,  $p < .01$ ).

### *Hierarchical Regression Analyses*

To determine whether each of the main independent variables of the study (i.e., religiousness, social support, self-control) predicts risk-behaviors after controlling for demographic predictors, hierarchical regression analyses were conducted with the risk-behaviors as criterion variables. In Model 1, the predictors entered into the hierarchical regression analyses were the demographic variables (i.e., gender, age). In this model, gender predicted lower levels of smoking ( $\beta = -.28$ ,  $p < .01$ ), drugs ( $\beta = -.16$ ,  $p < .05$ ) and sex ( $\beta = -.30$ ,  $p < .01$ ).

For Model 2, social support, self-control and religiousness were added to the predictors in Model 1. Focusing on drinking as the criterion variable, the change in  $R^2$  from Model 1 to Model 2 was significant ( $R^2$  change =  $.09$ ,  $p < .01$ ). Self-control ( $\beta = -.229$ ,  $p < .01$ ) and religiousness ( $\beta = -.17$ ,  $p < .05$ ) predicted lower levels of drinking. Focusing on smoking as the criterion variable, the change in  $R^2$  from Model 1 to Model 2 was significant ( $R^2$  change =  $.08$ ,  $p < .01$ ). Gender ( $\beta = -.243$ ,  $p < .01$ ) and self-control ( $\beta = -.199$ ,  $p < .05$ ) predicted lower levels of smoking. Focusing on drugs as the criterion variable, the change in  $R^2$  from Model 1 to Model 2 was significant ( $R^2$  change =  $.10$ ,  $p < .01$ ). Religiousness ( $\beta = -.171$ ,  $p < .05$ ) and

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self-control ( $\beta = -.187$   $p < .05$ ) predicted lower levels of drug use. Focusing on sex as the criterion variable, the change in  $R^2$  from Model 1 to Model 2 was significant ( $R^2$  change = .06,  $p < .01$ ). Gender ( $\beta = -.286$ ,  $p < .01$ ) and religiousness ( $\beta = -.163$   $p < .01$ ) predicted lower levels of sex.

In regards to social support analyses revealed that students who scored higher on social support tended to score lower on drinking, smoking and drugs however, these significant results did not remain after controlling for the effects of demographic variables.

Findings demonstrated that students who scored higher on self-control were likely to score lower on all risk-behaviors assessed in this study. Regression analyses showed that while significant results remained after controlling for the effects of demographic variables with regard to drinking, smoking and drugs, that was not the case with regard to sex.

In the area of religiosity the study found that students who scored higher on religiousness tended to score lower on all risk-behaviors. Regression analyses showed that after controlling for the effects of demographic variables, religiousness remained a significant predictor of drinking, drugs and sexual activity.

### DISCUSSION

This study aimed to examine the links between social support, self-control and religiousness and the involvement in several risk-behaviors among Palestinian adolescents.

#### *Key Findings*

In the current study it was found that higher levels of social support predicted lower levels of alcohol consumption, smoking and drug use among Palestinian youth. This is consistent with findings from previous studies which have shown that social support constitutes a protective factor from engagement in risky behaviors (Springer, Parcel, Baumler & Ross, 2005).

In addition the data demonstrated that self-control constituted a protective factor from drug and alcohol use, smoking and premature sexual activity. This finding too is consistent with findings from previous studies testifying to the important role that self-control plays in protecting youth from engaging in risky behaviors (Laird, Marks, & Marrero, 2010).

Further, it was found religiousness constituted a protective factor from alcohol use and premature sexual behavior. This finding is also consistent with findings from a large body of research testifying to the negative links between religiousness and the involvement in risky behaviors (Abar, Carter, & Winsler, 2009; Chamrathirong et al., 2010; Laird, Marks, & Marrero, 2011; McNamara, Burns, Johnson, & McCorkle, 2010).

As Islam considers alcohol consumption, drug use and engaging in premarital sex as absolutely forbidden, the relationship between religiousness and involvement in risk-

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behaviors, according to this explanation, is direct and non-mediated; it is built-in the religious teachings which Muslims are supposed to follow.

Two other findings of the study are worth-mentioning. First, males in this study scored significantly higher than females in smoking and premature sexual behavior. This finding is consistent with a large body of research indicating greater risk taking in male participants (Byrnes, Miller, & Schafer, 1999). Further the gambling subscale of the Life Experiences Questionnaire displayed a very low internal consistency suggesting its inapplicability perhaps to Palestinian youth. Given the potential destructive implications of gambling on youth's health and well-being, it is vital to understand this phenomenon from a Muslim-Arab perspective and develop an appropriate measure to assess it.

In summary findings indicate that social support, self-control and religiousness constitute significant protective factors from the involvement in risk behaviors. Self-control was the strongest protective factor even after contributions of demographic variables were removed.

### ***Implications, Limitations, and Future Directions***

The findings of this study have practical implications reducing engagement in risk-behaviors among Palestinian adolescents. Clear programs and interventions to enhance social networks among Palestinian adolescents including social/cultural groups and events would be indicated. Self-control is a skill that can be taught and modeled within family or social groups and could be included in school curriculum as well as in parental sessions. In a civil society encouraging religious beliefs and practices related to behavioral control is challenging but educating parents and the community as to the protective effects of religious activity might assist in increasing the prioritization of religion in families with adolescent children.

There are some parameters in the current study that need to be considered. The sample was relatively small and homogeneous in language, race, religion, and geographic area. Second, the methods of the present study are correlational and its results are cross-sectional. Consequently, we cannot make causal inferences based on its results. Longitudinal and experimental studies are needed to assess the causal connection between these variables. Third, the study utilized a survey format and its findings were based on self-report data. Although the instruments used here have good psychometric properties, self-report measures can be subject to biases. Future studies should explore the use of laboratory-based behavioral tasks and physiological measures. Finally, this study examined only three potential predictors and four indices of risk-behaviors. To further clarify the picture of risk-behaviors among Palestinian youth, future research should test further potential predictors (e.g., coping strategies, general well-being) and more indices of risky behaviors (e.g., violence, risky driving).

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Despite these limitations, this study constitutes a significant step in exploring the prevalence and correlates of the engagement in risky behaviors among Palestinian adolescents. It points to the important contributions of social support, self-control and religiousness in reducing risky behaviors and urges researchers to explore other predictors of this important area of life.

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