Self-regulation and Violence among Saudi Arabian Adolescent Girls in Private Schools

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Abstract

T his paper explores whether a relationship exists between self-regulation and violence among Saudi Arabian adolescent girls in private schools. The two major research questions that guide the research are the following: (1) Is there a significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools? (2) Does that relationship vary as a function of the parents' incomes? Based on these questions, the following alternative and their corollary null hypotheses are proposed for empirical testing: H1: There is a significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H0: There is no significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H2: The relationship varies significantly as a function of the parents' incomes; H0: The relationship does not vary significantly as a function of the parents' incomes. The data collected via a survey instrument were systematically analyzed to see whether they would yield findings that address the proposed questions and hypotheses, with the major objective being to help me make suggestions for how educators and parents can help ameliorate the problem. The substantive findings from the analysis led to partial acceptances of the hypotheses.
Keywords: Saudi Arabia, Self-regulation, Violence, Adolescent Girls, Private Schools

Introduction :

Like in other countries across the globe, violence committed by and against adolescents is a serious public health issue in Saudi Arabia. Available data indicate that both male and female adolescents are at risk of violence,

albeit precise figures on the anomaly are difficult to find. While the issue has received considerable attention in Western countries during the past decades, it remains a topic of culpability and humiliation in Saudi Arabia as in other Arab countries due to the stringent cultural norms and traditions that make it difficult to discuss such issues, especially in public. The terms "assault," "abuse," and "violence" are treated as closely associated and used as substitutes for one other in the literature on the topic. The available evidence has shown that there are serious short- and long-term physical and psychological ramifications associated with adolescent violence. In addition to the physical pain to the body, the ramifications include anxiety, cognitive disorders, depression, and nightmares, each of which oftentimes leads to social rejection and suicidal attempts (Al-Quaiz and Raheel, 2009; Alquaiz and Almuneef, 2012; AlMakadma and Ramisetty-Mikler, 2015; AlBuhairan et al., 2016; Elghossain et al., 2019). Add to these health problems the serious negative effect on the development of an adolescent's brain that causes emotional and social problems (Al-Eissa, 2019).

In Saudi Arabia, where the adolescent population was growing rapidly, national policy makers did not pay sufficient attention to the issue of adolescent violence until the 2000s. Sexual violence committed against female adolescents in particular was not sufficiently addressed by policy makers due to the fact that the country "is built on firm religious beliefs and predominantly males are considered authoritative, having a very strong role to play in decision making and family matters. This makes it nearly impossible to talk of such sensitive issues" (Al-Quaiz and Raheel, 2009:830).

The first significant initiative to address adolescent violence in Saudi Arabia was in 2012 when the National Family Safety Program launched the first anti-bullying campaign. Peer education to students in schools in Riyadh was provided by trained adolescent volunteers. Both students and school professionals were reported to have received the campaign quite well (AlBuhairan et al., 2016). The second major initiative to deal with the problem was the Saudi Child Helpline launched in 2014 to listen to children in crisis across the country 24 hours a day and seven days a week throughout the year. The services provided include professional counseling and urgent mobilization of protective services (Al-Eissa, 2019).

Despite the aforementioned problems and intervention efforts, an arduous literature search at the United States Library of Congress, university libraries in the Washington, DC area, and the Internet revealed that while some scholarly works exist on violence among adolescents in Saudi Arabia's schools in general, none was found specifically on self-regulation and violence among Saudi Arabian adolescent girls in private schools. Self-regulation is defined here as the capacity of an adolescent girl to control or supervise herself by means of rules and regulations without intervention from external bodies. An adolescent girl is denoted as a young female in the process of developing from a child into an adult. According to Eman Bajamal, in Saudi Arabia, the age of an adolescent is considered to range from 13 to 19 years (Bajamal, 2016, p. 3). And, violence is characterized as behavior involving physical force intended to hurt, damage, or kill someone or something.

In order to investigate the aforementioned topic for this article, the following two major research questions are probed: (1) Is there a significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools? (2) Does that relationship vary as a function of the parents' incomes? Based on these questions, the following alternative and their corollary null hypotheses are proposed for empirical testing: H1: There is a significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H0: There is no significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H2: The relationship varies significantly as a function of the parents' incomes; H0: The relationship does not vary significantly as a function of the parents' incomes. The major objective is to help me make suggestions for how educators and parents can help ameliorate the problem. Before doing all this, however, I will first discuss the related literature reviewed that inspired the topic and the research methodology that undergirds the research.

Review of Related Literature

As mentioned earlier, a laborious search of the Library of Congress, university libraries around the Washington, DC area and the Internet yielded no scholarly work that has examined precisely the topic of this article: i.e. self-regulation and violence among Saudi Arabian adolescent girls in private schools. Thus, the related literature on health-risk behaviors (i.e. behaviors that contribute to injuries and violence) pertaining to Saudi Arabian females in general was examined with the hope that it would

provide clues for understanding violence among Saudi Arabian adolescent girls in private schools.

Comprising journal articles and a doctoral dissertation, the available related literature is in English and relatively fairly recent. The foci of the works are on various health-risk behaviors and units of analysis (stages of age), and their levels of analysis are threefold: (1) national, or Saudi Arabia-specific; (2) regional, or Saudi Arabia within the Arab world; and (3) global, or Saudi Arabia vis-à-vis other countries across the world. This nature of the literature makes it possible to delineate Table 1 containing categories in which the various works can be reasonably subsumed and the synchronic, or thematic, review that ensues. Before doing all this, however, I must hasten to mention here that another way of organizing the review would have been by variables. Unfortunately, all of the works used many and almost the same variables. Thus, the variable approach would result in a great deal of repetitiveness and redundancy.

Table 1: Nature of Related Literature

Author(s)	Level and Unit of Analysis
AlMakadma and Ramisetty-Mikler, 2015	National, Adolescents
Ramisetty-Mikler and Almakkadma, 2016	National, Adolescents
Alquaiz, Almuneef and Minhas, 2012	National, Adolescents
Bajamal, 2016	National, Adolescents
Aiqahtani, Scott and Ullah, 2015	National, Adolescents
Al-Quaiz and Raheel, 2009	National, Adolescents
AlBuhairan et al., 2016	National, Adolescents
Al-Eissa, 2019	National, Adolescents
Jdaìtawì, 2015	National, Adults
Aboalshamat et al., 2018	National, Adults
Eldoseri and Sharps, 2017	National, Adults
Elghossain et al., 2018	Regional, Adolescents
Rose, 2012	Global, Adolescents and Adults

Source: Self-generated by Author

National: Adolescents

The literature that focused on the health-risk behaviors of adolescent females in Saudi Arabia at the national level of analysis comprises the largest number of works on the topic. Beginning with the article by AbdulKarim S. AlMakadma and Suhasini Ramisetty-Mikler (2015), they examined adolescents' school-related risk behaviors vis-à-vis student, school, and parent connectedness. The school-related risk factors included adolescents being absent from school, being disciplined for misconduct at school, and participating in fights on school grounds. All of these issues, the authors said, were rarely dealt with in Saudi Arabian society.

Employing a school-based cross-sectional design, AlMakadma and Ramisetty-Mikler (2015) chose 1668 students from high schools in Riyadh, and representing the North, South and Middle geographical locations, as subjects. The two largest public schools, one international school, and one private school were chosen from each geographical location for the survey. Every student in the randomly selected classrooms was given the survey questionnaire to complete. The survey instrument which sought answers about school behaviors and students' connectedness with parents was a self-administered type.

The overall results from the AlMakadma and Ramisetty-Mikler study (2015) indicated that as grade level increased, so did absenteeism; as grade level increased, engaging in school fights and misconduct decreased; male students demonstrated these risk-related behaviors more so compared to female students; students who demonstrated these risk-related behaviors had lesser school

connectedness and parental monitoring than those students who did not demonstrate the behaviors; and there were significant relationships between school connectedness with parental monitoring and the risk-related behaviors. The coauthors therefore concluded that schools needed to develop best practices and parents must engage in more monitoring activities to help ameliorate students' risk-related behaviors.

In a subsequent study, Ramisetty-Mikler and Almakadma (2016) investigated the nexus between the beliefs and viewpoints of adolescent students and risky driving behaviors (i.e. Tafheet) in Saudi Arabia. Utilizing a school-based cross-sectional and multistage probability sampling technique, the researchers surveyed 799 adolescents in Riyadh. The self-administered survey instrument comprised of questions adapted from school-based research conducted by the United States Centers for Disease Control and Prevention. The instrument entailed questions pertaining to beliefs about family and school, leisure time activities, and views about driving. The results generated revealed that a significant portion of the adolescents (40%) reported that they engaged in risky driving practices; a much larger proportion (70%) reported that the practices were cool; and even though the adolescents who engaged in the practices knew they were dangerous, they still participated in them. The authors concluded that the overall finding "unequivocally points to pro-attitudes and behaviors including a daring personality, not wearing a seat belt and using a mobile telephone while driving are significant factors with risky driving activity" (Ramisetty-Mikler and Almakadma, 2016, p. 55). Thus,

they suggested that strategic intervention was needed by the driving schools to help change the culture of risky driving in Saudi Arabia.

Next, Aljoharah M. Alquaiz, Maha A. Almuneef, and Hafia R. Minhas (2012) investigated the knowledge and its sources, resources of sex education, and knowledge of female adolescents in private and public schools in Riyadh. Their main purpose was to assess these aspects as they related to reproductive health and sexuality. Using a self-administered cross-sectional survey instrument, a sample of 417 randomly selected female students from five classes of intermediate and secondary levels in two schools in Riyadh served as respondents. The ages of the respondents ranged from 11 to 21 years. The results yielded after the data collected, covering the timeframe from January to April 2009, were analyzed indicated that a significant proportion of the respondents (42%) reported to have discussed sexual matters with their friends; a somewhat smaller proportion (15.8%) had discussed these issues with their mothers (parents); a relatively larger proportion (17.3%) had discussed the issues with domestic helpers; a very large proportion (61%) reported that their teachers had negative attitudes toward matters relating to sexuality; and relatively smaller proportions knew that syphilis (33.3%), gonorrhea (37.9%), and hepatitis B (14.5%) diseases were sexually transmitted. These findings led the researchers to recommend that despite Saudi Arabia's cultural and religious context, it was imperative for the health of the adolescents and, consequently, the larger society that formal sex education be initiated in the schools' curricula and more parents and teachers be open to discussions about these issues with the students.

Also, in her doctoral dissertation on health promotion and physical activity among female adolescents in Saudi Arabia, Eman Bajamal attempted to determine the direct and indirect impacts of the affective and cognitive variables (i.e. commitment, enjoyment, perceived barriers, self-efficacy, and social support) of the Health Promotion Model (HPM) on female adolescents in Saudi Arabia. Employing the HPM as the conceptual model, she randomly selected 405 Saudi female students from ten public intermediate and high schools in Jeddah to participate in the study. The subjects, whose mean age was 15.43 years, completed the survey questionnaires and also participated in the height and weight measurement procedures at their schools. The results from the survey showed that a quarter (25.3%) of the students were obese or overweight, and "commitment to physical activity partially mediated the relationship of perceived barriers to physical activity, physical activity self-efficacy, enjoyment of physical activity, and social support for physical activity with physical activity" (Bajamal, 2016, p. ii). In light of these results, she advocated for immediate interventions that would increase the physical activity of Saudi Arabian female adolescents, with information from her study to be utilized by nurses interested in developing such interventions.

In addition, the relatively short study (five single-spaced pages) by Nasseer Alqahtani, Jane Scott, and Shahid Ullah (2015) was geared toward determining whether there was a relationship between physical activity and sedentary behavior (screen time) as risk factors and obesity among adolescents in Saudi Arabia's rural areas. They used a cross-sectional multistage randomization

technique to survey 370 adolescents residing in the rural environs around Riyadh. The analysis of the data collected produced the following results: (a) a strong association existed between the moderate to vigorous metabolic equivalents (METs) and overweight and obesity among adolescent male subjects; and (b) a strong association also existed between screen time and overweight with obesity among both males and females. In sum, the researchers concluded that physical activity and prolonged screen time were major predictors for overweight and obesity among the adolescents in Saudi Arabia's rural environs.

Furthermore, Al-Joharah M. Al-Quaiz and Hafsa M. Raheel (2009) sought to ascertain the correlates, experiences, and frequency of sexual violence suffered by female adolescents living in Saudi Arabia's Riyadh city. Utilizing a cross-sectional survey of two schools (intermediate and secondary grade of each school) in the city, the researchers administered the questionnaires to five classes, with 25 randomly selected female adolescent students in each class. The survey, which was conducted from January to March of 2008, was administered to a total of 419 students who were asked to complete self-answering questionnaires that took 15 minutes to complete and were collected by three research assistants. The results from the data analysis revealed that a good proportion (10%) of the subjects reported to have experienced sexual violence, a significant proportion (31%) were never taught how to deal with the problem, and a significant number who reported to have unsupportive parents when discussing sexual issues were more vulnerable to sexual violence.

Moreover, in their examination of bullying among early adolescents in Saudi Arabia, Fadia S. AlBuhairan,

Majid Al Eissa, Nourah Alkufeidy, and Maha Almuneef (2016) focused on students in intermediate schools (grades 7-9) so that preventive measures could be developed to deter the behavior. These researchers utilized qualitative methods, comprising field observations, focus group discussions, and individual interviews. The interviewees included 40 students from four intermediate schools; 20 parents and caregivers of the students from the participating schools; and 31 school professionals comprising counselors, nurses, principals, psychologists, and social workers from the participating schools. Since access to the selected schools was gender-based, the data were collected by two research teams: one team was comprised of male researchers and the other team was made up of female researchers. Before the data collected were analyzed, they were first coded according to the themes ("types of bullying, factors encouraging bullying, and the impact of bullying"), subthemes ("lack of safe environments, recreational facilities, and inconsistencies in dealing with problematic behaviors"), and the emergent subthemes ("dislike of school, racism, aggressiveness, and social isolation") that came up during the data collection process. The substantive findings from the data analysis led the researchers to proffer that the themes and subthemes which provided a greater comprehension of the potential effect of bullying were germane for developing preventive measures to deal with the problem.

Finally, Majid A. Al-Eissa (2019) investigated the level of the interest of adolescents in talking about their personal experiences with abuse and/or neglect and the factors that motivated the disclosures via a child helpline in Saudi Arabia. The researcher employed a cross-sectional

countrywide survey instrument with the aid of the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) Child Abuse Screening Tool Children's Home Version to collect data from 16,010 boys and girls aged 15-18 years attending private and public secondary schools in the major five provinces in the country. Using the chi-square test (a statistical method used to assess the goodness of fit between observed values and those expected theoretically) to estimate the relationship between the readiness of the subjects to utilize the helpline and their demographic features, the results generated were the following: (a) almost half (48%) of the subjects stated their readiness to use the helpline if they experienced any form of abuse; (b) there were significations variations in the levels of readiness to use the helpline based on the type of abuse experienced, age, areas of residence, and gender; and (c) subjects who had experienced multiple types of abuse and neglect were more likely to use the helpline. Resultantly, Al-Eissa concluded that the ubiquity of child abuse and neglect could be reduced if more adolescents could be educated about using the helpline through awareness-raising campaigns.

National: Adults

Works that focused on the health-risk behaviors of adult females in Saudi Arabia analyzed at the national level constitute the second largest number of studies on the topic. Starting off with the first of the three articles, Malek Jdaìtawì (2015) conducted a systematic inquiry to ascertain whether there was an association between self-regulation on the one hand and self-control, self-efficacy, and social connectedness on the other hand. For his research design, Jdaìtawì utilized a quantitative survey technique, and 209

non-randomly selected undergraduate students enrolled in the preparatory year at the University of Dammam served as his subjects. The results generated after the collected data were analyzed revealed that there were significant and positive relationships between the variables as stated above; social connectedness and self-control predicted students' self-regulation, albeit not self-efficacy; there was a significant difference between self-control and self-regulation among the female students, but no significant differences were found for both male and female students on the remaining variables. Based on these results, Jdaìtawì espoused that academics and higher education practitioners should pay more attention to developing and assessing the Saudi Arabian students' self-regulation shills.

The second article was authored by Halah M. Eldoseri and Phyllis Sharps (2017). These investigators examined selected risk factors pertaining to spousal physical violence against women in Saudi Arabia, with a focus on women who frequently visited primary health care clinics. Utilizing a standardized World Health Organization violence against women questionnaire, the researchers conducted private one-to-one interviews with 200 women patients. The two findings that emerged after the interview data were analyzed were (1) a significant proportion of the women interviewed (45.5%) indicated that they had been victims of spousal physical violence; and (2) the significant predictors of spousal physical violence included husband-specific risk factors—alcohol or drug addiction, control of wealth in the family, physical violence toward other men, and unemployment. Concomitantly, Eldoseri and Sharps suggested that a multi-sectoral policy that facilitates the training of women to protect themselves and men to

participate in violence prevention and intervention techniques be implemented.

The third article by Khalid Aboalshamat, Wejdan Salman, Razan Almehman, Amal Maghrabi, Khadija Alamoudi, Amani Najjar, and Aeshah Alshehri (2018) is about the pervasive loneliness, suicidal attempts, and suicidal ideation among private college dental and medical students in Jeddah, which is in the western region of Saudi Arabia. The researchers employed a cross-sectional design with a sample comprising 607 of the dental and medical students. The self-administered survey instrument was adapted from the Revised University of California Los Angeles Loneliness Scale, with suicidal attempts measured by utilizing a questionnaire that had been used in earlier studies. The survey was conducted during examination time at the end of the school year. The results showed that loneliness was significant among the students surveyed (mean = 45.14; standard deviation = 8.66); a substantial proportion (37.7%) had experienced suicidal ideation throughout their lifespans; another significant proportion (33.4%) had experienced suicidal ideation during the last 12 months; a good proportion (23.2%) had attempted suicide; and the subgroups with the higher risk for suicidal attempts and ideation were female, low family income, married, and dental students. In light of these findings, Aboalshamat and his co-researchers called for the western region of Saudi Arabia to implement professional counseling and health promotion programs without delay.

Regional: Adolescents

Only one study analyzed the health-risk behaviors of adolescent females in Saudi Arabia at the regional level.

This article by Tatiana Elghossain, Sarah Bott, Chaza Akik, Hala Ghattas, and Carla Makhlouf Obermeyer (2019) systematically reviewed the extensiveness of violence against adolescents in 22 of the Arab League member states, which include Saudi Arabia. The data utilized for the review were on "physical and emotional child maltreatment, sexual abuse, bullying and fighting, violence in schools, and intimate partner violence against adolescent girls" systematically gleaned from peer-reviewed journal articles listed in the Medline and Social Science Citation Index and nationally-representative population-based surveys. The results from the review indicated that all of the foregoing violent aspects were widespread within the Arab region, leading the researchers to urge policy makers to take the problem very seriously and implement interventions to curb it.

Specifically for Saudi Arabia, Elghossain et al. (2019) pointed out two prevalent issues. The first issue was adult males "talking in a sexual way, showing their private parts and pornography, and trying to see the private parts or have sex with female adolescents." The second issue was that a significant proportion of the adolescents (34%) had reported physical, psychological, emotional and/or sexual abuse.

Global: Adolescents and Adults

Also, only one study analyzed the health-risk behaviors of adolescent and adult females in Saudi Arabia at the global level. This article by Susan D. Rose (2013) challenged global gender violence against women and children, which she said is a serious human rights and health issue confronting the world. She conceptualized

gender violence to include "rape, intimate partner violence, domestic violence, mutilation, sexual trafficking, dowry death, honor killings, incest, breast ironing," which she purported to be part and parcel of "a global pattern of violence against women, a pattern supported by educational, economic, and employment discrimination" (Rose, 2013, p. 61). Culling evidence from cross-national survey data and interviews with women who participated in the Global Clothesline Project, Rose found that the preservation of culture and family is the most frequently cited reason for denying women their human rights. She also discovered that while it had long been acknowledged that "gender violence is a significant cause of female morbidity and mortality…and is a human rights issue that has serious implications for public health and an obstacle for economic development, it persists" (Rose, 2013:61).

In the case of Saudi Arabia, Rose (2013) mentioned the incidence of a woman who was gang-raped by seven men in November of 2007. She pointed out that instead of the men being held accountable for their criminal conduct, it was the woman who was held responsible for her being raped and was sentenced to 200 lashes and six months in prison. Rose added that while there was an international outcry over the injustice, there was less public uproar in Saudi Arabia, and the most common form of violence against women which is intimate partner violence continued to receive little rebuke.

Summation

In sum, except for one study that utilized qualitative methods that emphasized words (AlBuhairan et al., 2016), all of the other works reviewed used cross-sectional survey

data for their analyses. An overwhelming majority of the analyses were therefore quantitative in nature: i.e. they emphasized the numerical values of the data by means of complex mathematical and statistical modeling. As such, the advantages of these studies included being able to examine the relationships between variables because the data were relatively easy to analyze; check for possible causes and effects as the data were consistent, precise and reliable; and make predictions. The disadvantages included not being able to provide in-depth explanations for the social phenomena investigated, difficulty in explaining the contexts of the phenomena examined, and the data not being robust enough to explain complex issues.

In addition, as can be discerned from the preceding review, none of the works examined precisely the topic of the present article, which is self-regulation and violence among Saudi Arabian adolescent girls in private schools. As such, the article seeks to fill this gap in the literature.

It behooves me to also mention here that as I was conducting the research for this paper, Heba Jamal Hariri was also working on her doctoral dissertation dealing with "the impact of parental attachment on self-regulation of Saudi children when they are exposed to school violence." She was quite generous in sharing with me her ideas and some of her data.

Research Methodolgy

The type of research methodology employed to guide this research is quantitative. To slightly expand the brief definition I provided earlier, the approach is employed to emphasize the numerical values of data collected through opinion polls and survey questionnaires, or by working

with existing statistical data using complex mathematical and statistical modeling. As I also mentioned, the advantages of the approach include a researcher being able to examine the relationships between variables because the data are relatively easy to analyze; check for possible causes and effects as the data are consistent, precise and reliable; and make predictions. The rest of this section discusses the research design, operationalizations of the variables, and data collection instrument and procedures used to facilitate the methodology. These aspects are discussed separately in the sequential order in which they are listed here for the sake of clarity.

Research Design

The one-group posttest only design is employed as the overall strategy to integrate the various components of this study. This pre-experimental design involves making observations only on research subjects who are being investigated for a particular phenomenon (treatment, predictor, or independent variable), and then only after they have been exposed to it. The design is diagrammatically represented as follows:

$$\overline{X\ O}$$

where X represents the independent (or treatment, or predictor) variable and O represents the observation of the dependent (or effect, or outcome) variable. Given the hypotheses stated earlier, for this study, the treatment is self-regulation; the effect comprises of violent attitudes and behavior among Saudi Arabia female adolescents in private schools. Also, parents' incomes, which serves as the

moderator (or control) variable, is considered as a treatment. These variables are operationalized in the following subsection.

Operationalizations of the Variables

The independent variable, self-regulation, was measured by using a 13-item questionnaire given to the adolescent females to state their behaviors ranging from positive to negative. The four-item rating scale from which the research subjects could select to gauge each statement comprised the following choices: (1) never true, (2) sometimes true, (3) mostly true, and (4) always true.

The moderator variable, parents' incomes, was measured in terms of the gross incomes of fathers and/or mothers in the various households. The variable was measured at the following three levels: (1) low income—SR3,800.00 (US$1,013.00) or less per month; (2) middle income—between SR3,900.00 and SR38,200.00 (US$1,039.00—US$10,183.00) per month; and (3) high income—more than SR38,200.00 (US$10,183.00) per month (Alnuaim, 2013, p. 36).

The dependent variable, violent attitudes and behavior among Saudi Arabia female adolescents in private schools, was measured by employing a 20-item questionnaire given to the adolescent females to assess their perspectives and conduct related to violence. The four-item rating scale for this variable included (1) YES!, (2) yes, (3) no, and (4) NO! The responses were written in this manner to assess the degree of the perspective and the conduct.

Data Collection Instrument and Procedures

As can be gleaned from the preceding discussion, a quantitative survey instrument was used to collect the necessary data for this research. The survey was translated

into the Arabic language so that the research subjects could clearly understand the questions, since Arabic is their first language. Before administering the survey, it was first pilot tested on three subjects aged 10-15 years to ensure validity and reliability. The problems indicated were addressed before the actual survey was conducted.

The research subjects consisted of 132 Saudi female adolescents aged 10-15 years who attended private elementary and middle schools in Jeddah. The random sample method was utilized and participation was voluntary. Before the survey was conducted, permissions were sought and obtained from the Saudi Arabia Department of Education, the principals of the schools, and the parents/guardians of the research subjects.

Data Analysis

The Analysis in this section is divided into two subsections. The first subsection entails a presentation of the results generated after the data collected via the survey were computed using the Statistical Package for the Social Sciences (SPSS). The second subsection discusses the findings from the results.

The Results

Given the major research questions with the attendant hypotheses that underlie this study, the goal here is to determine whether there are relationships between the treatment variables (self-regulation and parents' incomes) and the effect variable (violent attitudes and behavior among Saudi Arabia female adolescents in private schools). An appropriate statistic for determining such relationships is the regression coefficient: i.e. the constant

(α) that represents the rate of change of one variable (y) as a function of changes in the other (x).

Before computing the regression coefficients for the treatment and effect variables, it was first necessary to compute correlation coefficients (numerical measures of statistical relationships between two variables at a time) in order to determine whether there was multicollinearity (a situation in which two or more treatment variables in a multiple regression model are highly linearly or perfectly related) between the treatment variables for this study.

To begin with, as shown in Table 2, there is no significant statistical correlation at the 0.05 level between parents' incomes and any of the following 11 attributes of self-regulation: (1) SR1—I have a hard time controlling my temper; (2) SR2—I get so frustrated I feel ready to explode; (3) I get upset easily; (4) SR4—I am afraid I will lose control over my feelings; (5) SR5—I slam doors when I am mad; (6) SR7—I think about the future consequences of my actions; (7) SR8—Once I have a goal, I make a plan to reach it; (8) SR9—I get distracted by little things; (9) SR11—I get fidgety after a few minutes if I am supposed to sit still; (10) SR12—I have a hard time sitting still during important tasks; and (11) SR13—I find that I bounce my legs or wiggle with objects. There are, however, significant, albeit negative, statistical correlations at the 0.05 level between parents' incomes and these two attributes of self-regulation: (12) SR6—I develop a plan for all my important goals; and (13) SR10—As soon as I see things that are not working, I do something about it. In sum, parents' incomes and self-regulation are not highly linearly or perfectly related and, thus, there is no multicollinearity.

Table 2: Correlations

		Incomes
SR1	**Pearson Correlation**	**.083**
	Sig. (2-tailed)	**.342**
SR2	**Pearson Correlation**	**.008**
	Sig. (2-tailed)	**.929**
SR3	**Pearson Correlation**	**-.105**
	Sig. (2-tailed)	**.232**
SR4	**Pearson Correlation**	**-.107**
	Sig. (2-tailed)	**.225**
SR5	**Pearson Correlation**	**-.104**
	Sig. (2-tailed)	**.237**
SR6	**Pearson Correlation**	**-.182[*]**
	Sig. (2-tailed)	**.036**
SR7	**Pearson Correlation**	**-.061**
	Sig. (2-tailed)	**.485**
SR8	**Pearson Correlation**	**-.041**
	Sig. (2-tailed)	**.645**
SR9	**Pearson Correlation**	**-.087**
	Sig. (2-tailed)	**.325**
SR10	**Pearson Correlation**	**-.188[*]**
	Sig. (2-tailed)	**.031**
SR11	**Pearson Correlation**	**-.140**
	Sig. (2-tailed)	**.109**
SR12	**Pearson Correlation**	**-.077**
	Sig. (2-tailed)	**.382**
SR13	**Pearson Correlation**	**-.015**
	Sig. (2-tailed)	**.863**

* = Correlation is significant at the 0.05level of significance (2 tailed)

Source: Self-generated by author using SPSS

Next, a series of multiple regression models were computed for possible statistical relationships between the treatment and effect variables. The results are presented

vis-à-vis each of the 20 attributes of the effect variable: i.e. violent attitudes and behavior.

As reveled in Table 3, there is a negative and statistically significant relationship between parents' incomes and the perception that "there is too much violence in my school" at the 0.01 level. For each unit increase in the level of parents' incomes, there is about 0.19 units decrease in the perception. Also, there is a positive and statistically significant relationship between SR5 ("I slam doors when I am mad") and the perception at the 0.05 level. On this, for every unit increase in SR5, there is approximately 0.07 units increase in the perception.

Table 3: Explained Variance in There Is Too Much Violence at My School

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.526	.271		1.939	.055
	Income	-.189	.042	-.364	-4.453	.001
	SR1	.045	.047	.085	.954	.342
	SR2	.047	.042	.101	1.130	.261
	SR3	.023	.036	.055	.636	.526
	SR4	-.001	.041	-.002	-.023	.982
	SR5	.073	.034	.197	2.167	.032
	SR6	.056	.038	.137	1.498	.137
	SR7	-.045	.038	-.101	-1.180	.240
	SR8	-.005	.039	-.011	-.119	.906
	SR9	-.029	.038	-.064	-.760	.449
	SR10	.037	.037	.083	1.015	.312
	SR11	-.046	.040	-.107	-1.153	.251
	SR12	.059	.036	.148	1.624	.107
	SR13	.004	.034	.010	.121	.904

Coefficients[a]

a. Dependent Variable: violence

Source: Self-generated by author using SPSS

According to Table 4, neither parents' incomes nor any of the attributes for self-regulation has a statistically significant relationship with the belief that "if a fight between students is going to happen, I could do something to stop it" at 0.05 level.

Table 4: Explained Variance in If a Fight between Students Is Going to Happen, I Could Do Something to Stop It

		Coefficients[a]				
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.663	.365		1.816	.072
	Income	.037	.057	.063	.656	.513
	SR1	-.095	.063	-.156	-1.504	.135
	SR2	.035	.056	.065	.620	.536
	SR3	.003	.048	.007	.067	.946
	SR4	-.002	.055	-.004	-.039	.969
	SR5	.052	.046	.121	1.140	.257
	SR6	.008	.051	.017	.160	.873
	SR7	.056	.051	.111	1.104	.272
	SR8	-.019	.053	-.039	-.364	.716
	SR9	-.061	.050	-.120	-1.207	.230
	SR10	.028	.049	.055	.574	.567
	SR11	-.045	.054	-.091	-.839	.403
	SR12	.008	.049	.018	.172	.864
	SR13	-.058	.046	-.122	-1.278	.204
	a. Dependent Variable: violence					

Source: Self-generated by author using SPSS

Also, Table 5 shows that there is no statistically significant relationship between parents' incomes or any of the indicators for self-regulation and the notion that "it's ok to use violence to solve problems" at the 0.05 level.

Table 5: Explained Variance in It's OK to Use Violence to Solve Problems

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-.158	.343		-.459	.647
	Income	-.079	.054	-.133	-1.474	.143
	SR1	.000	.059	.001	.006	.995
	SR2	.096	.053	.179	1.820	.071
	SR3	-.016	.045	-.035	-.362	.718
	SR4	.049	.052	.097	.942	.348
	SR5	.040	.043	.093	.925	.357
	SR6	-.010	.048	-.022	-.217	.829
	SR7	-.013	.048	-.026	-.276	.783
	SR8	.032	.050	.066	.651	.516
	SR9	-.015	.047	-.029	-.309	.758
	SR10	.016	.046	.030	.340	.735
	SR11	.030	.051	.060	.585	.560
	SR12	.069	.046	.151	1.504	.135
	SR13	.017	.043	.037	.408	.684

Coefficients[a]

a. Dependent Variable: violence

Source: Self-generated by author using SPSS

From Table 6, it can be seen that first, a positive and statistically significant relationship exists between SR2 ("I get so frustrated I feel ready to explode") and the belief that "violence creates more problems than it solves" at the 0.01 level. A unit increase in SR2 leads to about a 0.13 increase in the belief. Second, there is a negative and statistically significant relationship between SR5 ("I slam doors when I am mad") and the belief at the 0.05 level. One unit increase in SR5 leads to about 0.09 units decrease in the belief. Third, a positive and statistically significant relationship exists between SR7 ("I think about the future consequences of my actions") and the belief at the 0.01

level. A unit increase in SR7 leads to about 0.12 units increase in the belief.

Table 6: Explained Variance in Violence Creates More Problems than It Solves

Coefficients[a]					
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.046	.320		.143	.886
	Income	.060	.050	.107	1.195	.235
	SR1	.000	.055	.000	-.003	.998
	SR2	.126	.049	.250	2.554	.012
	SR3	.033	.042	.075	.791	.431
	SR4	-.029	.048	-.062	-.607	.545
	SR5	-.085	.040	-.213	-2.134	.035
	SR6	.033	.044	.075	.749	.455
	SR7	.119	.045	.250	2.652	.009
	SR8	.024	.046	.053	.527	.599
	SR9	-.005	.044	-.011	-.122	.903
	SR10	-.075	.043	-.155	-1.730	.086
	SR11	-.015	.047	-.032	-.314	.754
	SR12	.041	.043	.095	.946	.346
	SR13	.008	.040	.018	.203	.839
a. Dependent Variable: violence						

Source: Self-generated by author using SPSS

To start with, as demonstrated in Table 7, there is a negative and statistically significant relationship between parents' incomes and the idea that "I would rather use violence to handle problems" at the 0.05 level. For every unit increase in parents' income level, there is 0.10 units decrease in the idea. Next, another negative and statistically significant relationship exists between SR7 ("I think about the future consequences of my actions") and the idea at the 0.01 level. For each unit increase in SR7, there is approximately 0.13 units decrease in the idea. In

addition, there is a positive and statistically significant relationship between SR11 ("I get fidgety after a few minutes if I am supposed to sit still") and the idea at the 0.05 level. Each unit increase in SR11 yields about 0.09 units decrease in the idea.

Table 7: Explained Variance in I would Rather Use Violence to Handle Problems

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.033	.310		.106	.916
	Income	-.100	.048	-.181	-2.074	.040
	SR1	.064	.054	.113	1.188	.237
	SR2	.031	.048	.062	.647	.519
	SR3	.017	.041	.037	.404	.687
	SR4	.016	.047	.035	.347	.730
	SR5	.009	.039	.023	.241	.810
	SR6	.002	.043	.006	.057	.955
	SR7	-.125	.043	-.265	-2.875	.005
	SR8	.013	.045	.029	.292	.771
	SR9	.034	.043	.072	.791	.430
	SR10	.000	.042	.001	.009	.993
	SR11	.094	.046	.204	2.055	.042
	SR12	.015	.042	.036	.370	.712
	SR13	.015	.039	.034	.387	.699

a. Dependent Variable: violence

Source: Self-generated by author using SPSS

Based on Table 8, it can be asserted that parents' incomes is not statistically related to the perception that "violence is easier than trying to handle problems peacefully" at the 0.05 significance level. Also, none of the attributes for self-regulation is statistically related to the perception at the 0.05 level of significance.

Table 8: Explained Variance in Violence Is Easier than Trying to Handle Problems Peacefully

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-.072	.299		-.240	.810
	Income	.026	.047	.052	.561	.576
	SR1	.033	.052	.065	.642	.522
	SR2	.031	.046	.068	.673	.502
	SR3	.006	.040	.014	.143	.887
	SR4	-.024	.045	-.057	-.540	.590
	SR5	.042	.037	.117	1.128	.261
	SR6	.066	.041	.166	1.590	.115
	SR7	-.059	.042	-.138	-1.413	.160
	SR8	-.102	.043	-.246	-2.347	.021
	SR9	.013	.041	.030	.311	.756
	SR10	.069	.040	.158	1.701	.092
	SR11	.034	.044	.081	.774	.441
	SR12	-.057	.040	-.147	-1.415	.160
	SR13	.033	.037	.083	.890	.375
a. Dependent Variable: violence						

Coefficients[a]

Source: Self-generated by author using SPSS

According to Table 9, there exists a positive and statistically significant relationship between SR7 ("I think about the future consequences of my actions") and the notion that "if I walk away from a fight, I'd be a coward or chicken") at the 0.05 level. For each unit increase in SR7, there is 0.09 units increase in the notion.

Table 9: Explained Variance in If I Walk away from a Fight, I'd Be a Coward

("Chicken")

Coefficients[a]					
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.316	.307		1.029	.306
	Income	-.075	.048	-.146	-1.566	.120
	SR1	.039	.053	.074	.728	.468
	SR2	-.062	.047	-.133	-1.307	.194
	SR3	-.006	.041	-.015	-.151	.880
	SR4	.046	.046	.107	1.005	.317
	SR5	.031	.038	.084	.803	.423
	SR6	-.068	.043	-.168	-1.602	.112
	SR7	.090	.043	.205	2.087	.039
	SR8	.000	.044	.001	.008	.994
	SR9	-.010	.042	-.023	-.232	.817
	SR10	-.025	.042	-.055	-.593	.554
	SR11	-.037	.045	-.087	-.824	.412
	SR12	.063	.041	.159	1.522	.131
	SR13	-.018	.038	-.044	-.474	.636
a. Dependent Variable: violence						

Source: Self-generated by author using SPSS

In can be seen in Table 10 that, for starters, SR3 ("I get upset easily") is positively and statistically related to the belief that "it's ok to hit someone who hits you first" at the 0.05 level of significance. Each unit increase in SR3 yields approximately 0.08 units increase in the belief. Also, SR8 ("once I have a goal, I make a plan to reach it") is statistically, albeit negatively, related to the belief at the 0.05 significance level. One unit increase in SR8 leads to about 0.09 units decrease in the belief. In addition, SR12 ("I have a hard time sitting still during important tasks") is positive and statistically related to the belief at the 0.01

level of significance. A unit increase in SR12 yields about 0.12 units increase in the belief.

Table 10: Explained Variance in It's OK to Hit Someone Who Hits You First

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.070	.284		.248	.804
	Income	.006	.044	.012	.145	.885
	SR1	.035	.049	.065	.709	.480
	SR2	.017	.044	.036	.384	.701
	SR3	.076	.038	.181	2.019	.046
	SR4	.000	.043	.000	-.004	.997
	SR5	.023	.035	.061	.649	.518
	SR6	.048	.039	.116	1.221	.225
	SR7	-.048	.040	-.107	-1.201	.232
	SR8	-.087	.041	-.201	-2.109	.037
	SR9	.025	.039	.055	.633	.528
	SR10	.008	.038	.017	.198	.844
	SR11	.003	.042	.007	.070	.944
	SR12	.122	.038	.303	3.206	.002
	SR13	.022	.035	.054	.636	.526
a. Dependent Variable: violence						

Coefficients[a]

Source: Self-generated by author using SPSS

Table 11 indicates that a negative and statistically significant relationship exists between SR8 ("once I have a goal, I make a plan to reach it") and the behavior of "I hit back when someone hits me first" at the 0.05 level. For each unit increase in SR8, there is an almost 0.09 units of decrease in the behavior. The table also shows that there is a positive and statistically significant relationship between SR13 ("I found that I bounce my legs or wiggle with objects") and the behavior at the 0.05 level. Each unit increase in SR13 yields about 0.08 units increase in the behavior.

Table 11: Explained Variance in I Hit back When Someone Hits Me First

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.226	.291		.778	.438
	Income	-.058	.045	-.107	-1.268	.207
	SR1	.078	.050	.142	1.556	.123
	SR2	.022	.045	.044	.481	.632
	SR3	-.007	.038	-.017	-.190	.849
	SR4	.080	.044	.177	1.839	.069
	SR5	.025	.036	.065	.695	.488
	SR6	.034	.040	.080	.843	.401
	SR7	-.062	.041	-.136	-1.531	.128
	SR8	-.088	.042	-.200	-2.102	.038
	SR9	-.035	.040	-.077	-.881	.380
	SR10	.014	.039	.029	.349	.728
	SR11	.037	.043	.083	.873	.385
	SR12	.042	.039	.103	1.088	.279
	SR13	.083	.036	.193	2.281	.024

Coefficients[a]

a. Dependent Variable: violence

Source: Self-generated by author using SPSS

It is evident in Table 12 that SR7 ("I think about the future consequences of my actions") is negatively and statistically related to the behavior that "I encouraged other students to fight" at the 0.05 significance level. A unit increase in SR7 leads to 0.08 units decrease in the behavior. In addition, SR12 ("I have a hard time sitting still during important tasks") is positively and statistically related to the behavior at the 0.05 level of significance. Each unit increase in SR12 yields about 0.08 units increase in the behavior.

Table 12: Explained Variance in I Encouraged Other Students to Fight

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-.622	.275		-2.264	.025
	Income	.073	.043	.154	1.710	.090
	SR1	-.022	.048	-.044	-.456	.649
	SR2	-.031	.042	-.073	-.738	.462
	SR3	.017	.036	.045	.469	.640
	SR4	.020	.041	.051	.493	.623
	SR5	.017	.034	.050	.503	.616
	SR6	.014	.038	.038	.380	.705
	SR7	-.080	.039	-.197	-2.084	.039
	SR8	.080	.040	.205	2.021	.046
	SR9	.053	.038	.131	1.406	.162
	SR10	.052	.037	.125	1.391	.167
	SR11	.037	.040	.093	.910	.365
	SR12	.078	.037	.212	2.109	.037
	SR13	-.006	.034	-.016	-.175	.861

Coefficients[a]

a. Dependent Variable: violence

Source: Self-generated by author using SPSS

To begin with, as can be gleaned from Table 13, there is a negative and statistically significant relationship between SR1 ("I have a hard time controlling my temper") and the behavior that "I pushed, slapped, or kicked another student") at the 0.05 level. Each unit increase in SR1 manifests about 0.10 units decrease in the behavior. Next, another negative and statistically significant relationship exists between SR7 ("I think about the future consequences of my actions") and the behavior at the 0.05 level. A unit increase in SR7 leads to approximately 0.08 units decrease in the behavior. Furthermore, a positive relationship holds between SR11 ("I get fidgety after a few minutes if I am

supposed to sit still") and the behavior at the 0.05 level. Each unit increase in SR11 yields about 0.10 units increase in the behavior.

Table 13: Explained Variance in I Pushed, Slapped, or Kicked Another Student

	Model	B	Std. Error	Beta	t	Sig.
		Unstandardized Coefficients		**Standardized Coefficients**		
1	(Constant)	.413	.301		1.370	.173
	Income	-.017	.047	-.032	-.354	.724
	SR1	-.104	.052	-.193	-1.999	.048
	SR2	-.033	.046	-.069	-.713	.477
	SR3	-.007	.040	-.016	-.168	.867
	SR4	.035	.045	.079	.777	.439
	SR5	-.010	.038	-.027	-.271	.787
	SR6	-.068	.042	-.163	-1.630	.106
	SR7	-.081	.042	-.180	-1.917	.058
	SR8	-.011	.044	-.026	-.263	.793
	SR9	.034	.042	.076	.820	.414
	SR10	.063	.041	.138	1.555	.123
	SR11	.104	.044	.235	2.335	.021
	SR12	.058	.040	.144	1.443	.152
	SR13	-.011	.038	-.027	-.305	.761
	a. Dependent Variable: violence					

Coefficients[a]

Source: Self-generated by author using SPSS

Table 14 exhibits that there exists a positive and statistically significant relationship between SR5 ("I slam doors when I am mad") and the behavior of "I was in a physical fight because I was angry" at the 0.01 level. Each unit increase in SR5 yields approximately 0.15 units increase in the behavior.

Table 14: Explained Variance in I was in a Physical Fight Because I was Angry

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.077	.336		.228	.820
	Income	-.020	.053	-.035	-.389	.698
	SR1	-.047	.058	-.078	-.801	.425
	SR2	-.004	.052	-.008	-.080	.936
	SR3	-.063	.044	-.135	-1.418	.159
	SR4	.032	.051	.066	.639	.524
	SR5	.147	.042	.350	3.497	.001
	SR6	.053	.047	.114	1.132	.260
	SR7	.009	.047	.017	.183	.855
	SR8	-.031	.049	-.065	-.643	.522
	SR9	-.079	.046	-.158	-1.695	.093
	SR10	.029	.045	.057	.638	.525
	SR11	-.007	.049	-.015	-.146	.884
	SR12	.059	.045	.132	1.312	.192
	SR13	.022	.042	.048	.530	.597
a. Dependent Variable: violence						

Coefficients[a]

Source: Self-generated by author using SPSS

Vis-à-vis Table 15, it can be stated that there is a negative and statistically significant relationship between parents' incomes and the behavior of "I walk away from a fight" at the 0.01 level. A unit increase in the parents' income level yields about 0.76 units decrease in the behavior. In addition, there is positive and statistically significant relationship between SR6 ("I develop a plan for all my important goals") and the behavior at the 0.05 level. For each unit increase in SR6, there is approximately 0.10 units increase in the behavior.

Table 15: Explained Variance in I Walked Away from a Fight

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.761	.337		2.263	.026
	Income	-.175	.053	-.296	-3.331	.001
	SR1	-.027	.058	-.044	-.459	.647
	SR2	-.014	.052	-.027	-.276	.783
	SR3	-.014	.045	-.030	-.322	.748
	SR4	.001	.051	.003	.028	.977
	SR5	-.024	.042	-.056	-.561	.576
	SR6	.103	.047	.220	2.207	.029
	SR7	-.007	.047	-.015	-.159	.874
	SR8	.039	.049	.080	.793	.429
	SR9	-.014	.047	-.027	-.293	.770
	SR10	.015	.046	.029	.332	.740
	SR11	-.061	.050	-.125	-1.240	.217
	SR12	.057	.045	.126	1.270	.206
	SR13	-.008	.042	-.016	-.181	.857
a. Dependent Variable: violence						

Coefficients[a]

Source: Self-generated by author using SPSS

As can be discerned in Table 16, a positive and statistically significant relationship manifests itself between SR3 ("I get upset easily") and the attitude of "I was angry most of the day" at the 0.01 level. For every unit increase in SR3, there is almost 0.09 units increase in the attitude. Also, another positive and statistically significant relationship exists between SR7 ("I think about the future consequences of my actions") and the attitude at the 0.05 level. Every unit increase in SR7 leads to about 0.06 units increase in the attitude.

Table 16: Explained Variance in I Was Angry Most of the Day

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.386	.241		1.603	.112
	Income	-.032	.038	-.075	-.854	.395
	SR1	.023	.042	.052	.547	.585
	SR2	-.025	.037	-.064	-.671	.503
	SR3	.088	.032	.257	2.772	.007
	SR4	.010	.036	.027	.274	.784
	SR5	.036	.030	.115	1.184	.239
	SR6	.006	.033	.018	.180	.858
	SR7	.064	.034	.176	1.908	.059
	SR8	.046	.035	.131	1.326	.187
	SR9	-.046	.033	-.125	-1.380	.170
	SR10	-.076	.033	-.203	-2.328	.022
	SR11	.051	.035	.143	1.443	.152
	SR12	-.002	.032	-.005	-.055	.956
	SR13	.019	.030	.056	.643	.522
	a. Dependent Variable: violence					

Source: Self-generated by author using SPSS

Table 17 reveals that SR4 ("I am afraid I will lose control of my feelings") is positively and statistically related to the behavior of "I was mean to someone when I was angry" at the 0.05 level of significance. A unit increase in SR4 leads to about 0.10 units decrease in the behavior.

Table 17: Explained Variance in I Was Mean to Someone When I Was Angry

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-.393	.338		-1.161	.248
	Income	.041	.053	.071	.784	.434
	SR1	.005	.059	.009	.092	.927
	SR2	.038	.052	.072	.727	.469
	SR3	.047	.045	.101	1.049	.296
	SR4	.101	.051	.205	1.983	.050
	SR5	.058	.042	.139	1.376	.171
	SR6	-.023	.047	-.049	-.481	.631
	SR7	.014	.047	.029	.301	.764
	SR8	.007	.049	.014	.133	.894
	SR9	-.036	.047	-.073	-.772	.442
	SR10	.051	.046	.100	1.106	.271
	SR11	.013	.050	.027	.258	.797
	SR12	.012	.045	.027	.266	.790
	SR13	.037	.042	.080	.880	.381
	a. Dependent Variable: violence					

Source: Self-generated by author using SPSS

The results in Table 18 indicate that a positive and statistically significant relationship holds between SR12 ("I have a hard time sitting still during important tasks") and the behavior of "I threatened to hit or hurt another student" at the 0.01 level. Each unit increase in SR12 leads to approximately 0.12 units increase in the behavior.

Table 18: Explained Variance in I Threatened to Hit or Hurt Another Student

	Model					

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.157	.335		.469	.640
	Income	-.011	.052	-.019	-.203	.840
	SR1	.038	.058	.067	.663	.508
	SR2	-.090	.052	-.176	-1.735	.085
	SR3	.004	.044	.009	.088	.930
	SR4	.088	.050	.186	1.758	.081
	SR5	.025	.042	.063	.608	.544
	SR6	.033	.046	.074	.706	.481
	SR7	-.040	.047	-.082	-.845	.400
	SR8	-.016	.049	-.033	-.320	.750
	SR9	-.025	.046	-.053	-.546	.586
	SR10	-.009	.045	-.017	-.189	.851
	SR11	-.063	.049	-.133	-1.271	.206
	SR12	.118	.045	.274	2.644	.009
	SR13	.009	.042	.020	.211	.834
	a. Dependent Variable: violence					

Coefficients[a]

Source: Self-generated by author using SPSS

It can be postulated based on Table 19 that first, there is a negative and statistically significant relationship between parents' incomes and the behavior that "I helped someone stay out of a fight" at the 0.01 level. A unit increase in parents' income level leads to about 0.13 units decrease in the behavior. Second, a positive and statistically significant relationship exists between SR5 ("I slam doors when I am mad") and the behavior at the 0.05

level. Each unit increase in SR5 yields approximately 0.08 units increase in the behavior. Third, SR7 ("I think about the future consequences of my actions") is also positively and statistically related to the behavior at the 0.01 significance level. A unit increase in SR7 manifests about 0.12 units increase in the behavior. Fourth, there is a negative and statistically significant relationship between SR9 ("I get distracted by little things") and the behavior at the 0.01 level. Each unit increase in SR9 yields about 0.11 units decrease in the behavior. Fifth and finally, a positive and statistically significant relationship exists between SR10 ("as soon as I see things are not working, I do something about it") and the behavior at the 0.05 level. A unit increase in SR10 leads to about 0.09 units increase in the behavior.

Table 19: Explained Variance in I Helped Someone Stay Out of a Fight

		Unstandardized Coefficients		Standardized Coefficients		
	Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	.505	.301		1.679	.096
	Income	-.129	.047	-.232	-2.748	.007
	SR1	-.044	.052	-.078	-.850	.397
	SR2	-.040	.046	-.079	-.858	.392
	SR3	.050	.040	.111	1.246	.215
	SR4	.013	.045	.027	.286	.776
	SR5	.075	.038	.188	1.998	.048
	SR6	.038	.042	.087	.917	.361
	SR7	.118	.042	.247	2.786	.006
	SR8	-.070	.044	-.153	-1.608	.111
	SR9	-.108	.042	-.226	-2.588	.011
	SR10	.093	.041	.191	2.275	.025
	SR11	-.032	.044	-.068	-.716	.475
	SR12	.052	.040	.122	1.297	.197
	SR13	.010	.038	.023	.270	.788
	a. Dependent Variable: violence					

Coefficients[a]

Source: Self-generated by author using SPSS

Evident in Table 20 is that there is a negative and statistically significant relationship between SR1 ("I have a hard time controlling my temper") and the behavior of "I told another student how I felt when he/she upset me" at the 0.05 level. Every unit increase in SR1 is accompanied by about 0.13 units decrease in the behavior. Also, a positive and statistically significant relationship exists between SR10 ("as soon as I see things that are not working, I do something about it") and the behavior at the 0.01 level. Each unit increase in SR10 yields approximately 0.16 units increase in the behavior.

Table 20: Explained Variance in I Told Another Student How I Felt When He/She Upset Me

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.148	.343		.431	.668
	Income	-.008	.054	-.013	-.147	.884
	SR1	-.129	.059	-.212	-2.174	.032
	SR2	.028	.053	.053	.537	.592
	SR3	.063	.045	.133	1.398	.165
	SR4	.006	.052	.013	.123	.902
	SR5	-.058	.043	-.135	-1.350	.180
	SR6	-.013	.048	-.027	-.265	.791
	SR7	-.091	.048	-.180	-1.902	.060
	SR8	.024	.050	.049	.482	.631
	SR9	.011	.047	.022	.231	.818
	SR10	.157	.046	.304	3.390	.001
	SR11	-.036	.050	-.072	-.709	.480
	SR12	.073	.046	.160	1.592	.114
	SR13	.071	.043	.149	1.653	.101
a. Dependent Variable: violence						

Source: Self-generated by author using SPSS

First, one can glean from Table 21 that there is a positive and statistically significant relationship between

SR6 ("I develop a plan for all my important goals") and the attitude that "I avoid getting into a physical fight when somebody wanted to fight me" at the 0.05 level. A unit increase in SR6 manifests 0.09 units increase in the attitude. Second, a negative and statistically significant relationship exists between SR10 ("as soon as I see things that are not working, I do something about it") and the attitude at 0.05 level. Each unit increase in SR10 leads to about 0.11 units decrease in the attitude. Third, there also is a negative and statistically significant relationship between SR11 ("I get fidgety after a few minutes if I am supposed to sit still") and the attitude at the 0.01 level. A unit increase in SR11 yields approximately 0.14 units decrease in the attitude.

Table 21: Explained Variance in I Avoided Getting into a Physical Fight When
Somebody Wanted to Fight Me

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	.480	.339		1.414	.160
Income	.029	.053	.049	.545	.587
SR1	-.069	.059	-.114	-1.172	.244
SR2	.012	.052	.023	.235	.815
SR3	.060	.045	.127	1.336	.184
SR4	-.038	.051	-.077	-.754	.452
SR5	.045	.042	.106	1.057	.293
SR6	.090	.047	.193	1.906	.059
SR7	.062	.048	.124	1.307	.194
SR8	.044	.049	.090	.888	.376
SR9	.012	.047	.023	.251	.802
SR10	-.105	.046	-.204	-2.281	.024
SR11	-.143	.050	-.291	-2.856	.005
SR12	.078	.045	.173	1.721	.088
SR13	-.041	.042	-.088	-.975	.332
a. Dependent Variable: violence					

Source: Self-generated by author using SPSS

Finally, to start with, it can be observed in Table 22 that there is a negative and statistically significant relationship between parents' incomes and the behavior that "I helped other students solve a conflict peacefully" at the 0.01 level. Each unit increase in the level of parents' income leads to approximately 0.14 units decrease in the behavior. Next, SR12 ("I have a hard time sitting still during important tasks") is positively and statistically related to the behavior at the 0.01 level of significance. A unit increase in SR12 yields about 0.13 units increase in the behavior.

Table 22: Explained Variance in I Helped Other Students Solve a Conflict Peacefully

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	.219	.287		.764	.446
	Income	-.135	.045	-.252	-3.023	.003
	SR1	-.038	.050	-.070	-.773	.441
	SR2	-.016	.044	-.032	-.356	.722
	SR3	.034	.038	.079	.896	.372
	SR4	-.012	.043	-.025	-.267	.790
	SR5	.047	.036	.123	1.323	.188
	SR6	.003	.040	.007	.080	.936
	SR7	.068	.040	.148	1.693	.093
	SR8	.075	.042	.170	1.808	.073
	SR9	-.069	.040	-.150	-1.741	.084
	SR10	.047	.039	.100	1.208	.230
	SR11	-.027	.042	-.061	-.646	.519
	SR12	.126	.038	.305	3.280	.001
	SR13	.031	.036	.072	.858	.393
a. Dependent Variable: violence						

Source: Self-generated by author using SPSS

It is quite evident from the preceding analysis that the results generated from the SPSS computer runs are mixed: i.e. while some of the attributes of the treatment variables manifest statistically significant relationships (both positive and negative) with the effect variable, others do not. Thus, the hypotheses tested for this study must only be partially accepted or partially rejected: H1: There is a significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H0: There is no significant relationship between self-regulation and violent attitudes and behavior among Saudi Arabia's female adolescents in private schools; H2: The relationship varies significantly as a function of the parents' incomes; H0: The relationship does not vary significantly as a function of the parents' incomes.

Discussion of the Findings

As stated earlier, no scholarly work was found that has examined specifically self-regulation and violence among Saudi Arabian adolescent girls in private schools. Hence, the related works reviewed for this essay cannot be assessed based on its findings. Nonetheless, there are studies on the topic in other societies upon which the import of the present study can be gauged.

To begin with, self-regulation has been found to be connected with violent and other negative attitudes and behaviors among adolescents. For example, in his study of 400 adolescents in schools of the sixth district of Tehran in Iran, Nayereh Shahmohammadi (2014) demonstrates that the lack of interest in self-regulation led the students to disobey laws and rules, develop low self-esteem, and engage in violent activities. More perplexing is that these

attitudes and behaviors are manifest even among students who do not have serious abnormal behavioral problems.

Next, it has been shown that there is a nexus between levels of parents' incomes and violent and other negative attitudes and behaviors among adolescents. For instance, Eric Jensen (2009) shows that in the United States, swamped by feelings of severe despondency and dejection, decreased self-esteem, incapacity to deal with difficult issues, and a feeling of powerlessness, low-income parents pass along these feelings to their adolescents in the form of a common failure to pay attention to the children's needs, insufficient nurturing, and negative attitudes and behaviors. These adolescents in turn display these imbibed attitudes and behaviors in school.

Conclusion and Recommendations

Based on the preceding findings, the conclusion that there are significant relationships between some attributes of self-regulation and some features of violent attitudes and behavior among Saudi Arabia's female adolescents in private schools, and that some of the relationships vary significantly as a function of the parents' incomes, is hardly a matter of dispute. Thus, there are several implications of these findings that call for interventions in the Saudi society. One implication is the likelihood of losing well-qualified teachers in the schools, as these teachers, out of fear for their safety, leave for other professions or migrate to other Middle Eastern or Muslim countries that have stricter controls over student behavior. Another implication is the probability for the emergence of a culture of violence that could have consequences beyond the learning environment and affect the greater society.

The other implication is the likelihood of ending up with poorly-educated students incapable of functioning adequately in the society and making significant contributions to its development.

Given these implications, a number of recommendations are made here. First, formal peace education should introduced in the curricula of the Saudi schools within the context of the society's culture and religion. The focus should be on violence prevention and intervention programs. Second, parents and teachers should be more open to discuss issues relating to violence and other negative attitudes and behaviors with their children and students. In fact, parents and teachers should work as a team to encourage self-regulation as an important means to promote positive student behavior and educational outcomes. Third, effective strategies should be developed to enhance the best practices that would advance positive student behavior within school environments. Mindfulness training in addition to a student's self-regulation behavior, for instance, can yield a change in the use of violence-refraining strategies by the student. Fourth, education specialists should develop and assess approaches that could be taught to students to enhance their self-regulation. Educators who have knowledge and skills to recognize behavioral problems and establish positive relations and rapport with students have been quite pivotal in structuring the personality development of students. Fifth, the Saudi government should implement professional counseling and violence-elimination programs in various areas of the society. The government must also be made aware that socioeconomic status is connected with students' behavioral problems and it must, therefore, develop

policies to remediate unfair underrepresentation and underachievement of children from the lower class in learning trajectories. In addition, the government must expand and promote within the various media the services of the national child helpline not only as a source for reporting child abuse but for also helping students deal with their urges to engage in violent acts.

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