



RESEARCH ARTICLE

Turkish high school students' susceptibility to peer pressure as a function of religiosity, self-esteem, and autonomy

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Abstract

This study examined high school Turkish adolescents' susceptibility to peer pressure across four domains (family, peer, school, and misconduct) as a function of religiosity (extrinsic/intrinsic), self-esteem, and self-perceived level of autonomy. Further analysis examined religiosity in the context of educational institutions (religious/non-religious) and its relationship with peer pressure susceptibility. A non-random convenience sampling method generated a sample of 259 students enrolled in the 9th (n=168) and 11th (n=89) grades at three high schools in Istanbul, Turkey, with an average age of 15.78 years (SD=1.11). A series of multiple hierarchical regression analyses and correlational analyses indicated several sex differences across domains and highlighted the importance of religiosity to understanding adolescent peer pressure susceptibility. Self-esteem was the most consistent predictor of susceptibility to peer pressure in the four domains.

Keywords: Adolescence; peer pressure; self-esteem; religiosity; high school

INTRODUCTION

Socialization processes emerge at birth and continue to exert a profound influence on individual psychological and social development throughout the lifespan, both by proximal (near others) and distal (macro-level) forces (Grusec & Davidov, 2010). However, while socialization forces occur throughout an individual's life, they take on greater salience during the adolescent period, and to a lesser extent, during the emerging adulthood period (Arnett, 2000), as identity processes are experienced, and viable identities are achieved and resolved. Peers are key actors in developing adolescent identities and influence many facets of identity development (Rageliene, 2016), including, for example, values, social skills, and the development of intimacy (Klarin, 2006).

In adolescence, peer groups become the main reference as teenagers spend more time with their peers without parental or adult supervision (Chan & Chan, 2013). As Erikson (1968) explained, adolescents search for their identities to be independent of parental control, protection, and impacts. On the other hand, this creates uncertainty that leads adolescents to seek support, assurance, and social

acceptance from peer groups (Erikson, 1968). While socialization can take multiple forms and occur through multidimensional mechanisms, one of the most significant ways through which socialization during the adolescent period occurs is in the experience of peer pressure, which is defined as pressure or force on an individual to conform to a group's norms and expectations, and which functions to inculcate group norms and promote peer group loyalty (Vander Zanden, 2000).

It is important to note that peer pressure is not a unitary concept of influence. It exists within a multidimensional space allowing for its expression and effects across many adolescent interaction and involvement domains. Previous studies demonstrate that adolescent peer pressure is a complex phenomenon with various dimensions. Clasen and Brown (1985) classified peer pressure into five domains: peer involvement, school involvement, family involvement, misconduct, and peer norm conformity. While peer involvement includes spending time with friends, trying to impress the opposite sex, or going to parties, the peer conformity domain refers to behavioral conformity, including sharing the same musical preferences or dressing in similar ways. Within the school domain of peer pressure, conformity centers around grades, student-teacher relationships, and school involvement. The family involvement domain involves spending time with family, keeping parents informed, or obeying parental rules. Another domain that adolescents feel pressure is misconduct, including drinking, smoking, stealing, having sex, or vandalizing. Later researchers focused on peer pressure as occurring across multiple interaction domains. A domain analysis elaborates on the role of peer pressure in

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adolescent development as research suggests that multiple person-level variables differentially explain domain-based peer pressure susceptibility (McCoy et al., 2019; Sim & Koh, 2003).

Adolescence in Turkish Context

One aspect of Turkish culture that affects adolescent behavior and susceptibility to peer pressure is the emphasis on family and communal values. Turkey has a collectivist cultural orientation (Dost-Gözkın, 2022; Hofstede, 2001), where the family unit is highly prioritized. Adolescents often maintain close ties with their families and extended relatives, and family opinions and expectations carry substantial weight in decision-making. This cultural value can influence how adolescents respond to peer pressure. The desire to maintain familial harmony and honor can act as a counterbalance to negative peer influences. Adolescents might consider the potential consequences of their actions on their family's reputation and approval (Oyserman et al., 2002).

Religion also plays a significant role in Turkish society. Most Turks are Muslims, and Islamic principles guide many aspects of life, including social interactions (Nişancı, 2023). Religious values and practices can impact how adolescents navigate peer pressure situations (Fithria et al., 2021). The teachings of Islam emphasize modesty, ethical behavior, and self-discipline, which can influence adolescents' choices and promote resistance to negative peer influences (Sirin & Katsiaficas, 2011). It is also important to consider the role of gender dynamics in Turkish society when considering the role of religion and peer pressure in susceptibility to peer pressure. Gender roles and expectations can influence how peer pressure is experienced by male and female adolescents and this can intersect with religiosity, as females have been reported to be more religious than males in Turkey (Nişancı, 2023). Societal expectations regarding modesty and social interactions can shape how adolescents navigate friendships and social circles (Kağıtçıbaşı, 2017), thus influencing peer pressure susceptibility.

Predictors of Peer Pressure Susceptibility

Previous research on peer pressure during adolescence has examined how peer pressure relates to risk-taking behavior and engagement in delinquent actions (Gifford-Smith et al., 2005; Urberg et al., 2003). Many predictors of peer pressure susceptibility across a range of domains have been identified, including adolescent sex (Davies & Kandel, 1981; Widman et al., 2016), age (Steinberg, 2007), parenting practices (Allen, Porter, & McFarland, 2006), and attachment style (Allen et al., 2007). In a review, McCoy et al. (2019) reported that males are more susceptible to peer pressure in the domain of misconduct and risk-taking than females. The quality of early relationships with parents and attachment styles are also found to be associated with later peer relationships and peer pressure susceptibility (Youngblade & Belsky, 1992). Adolescents who are emotionally detached from their parents were found to be more susceptible to peer pressure (Chan & Chan, 2013) and more likely to have engaged in substance use and deviant behaviors (Brown, Clasen & Eicher, 1986). Other variables associated with adolescents' beliefs and self-perceived identity characteristics have received less attention and the extant findings are more conflicting relative to peer pressure susceptibility.

One of these variables is the self-perceived level of autonomy expressed by the adolescent and the predictors of autonomy in response to peer pressure influences.

Previously, Steinberg and Silverberg (1986) conceptualized the emotional autonomy of adolescents as their changing perceptions of parents. Ryan and Lynch (1989) found that susceptibility to peer pressure is related to secure attachment relationships with parents. Non-securely attached adolescents who do not receive acceptance and support from their families tend to search for these needs in friends (Ryan & Lynch, 1989). Adolescents tend to identify themselves with their peer group as they self-segregate to develop a positive self-concept, an increased sense of personal autonomy, and a sense of identity (Brown & Lohr, 1987).

However, recent studies have indicated that ongoing supportive relationships and positive interactions with parents are essential for adolescents to feel secure and be autonomous. Allen et al. (2012) reported a significant relationship between lower levels of adolescent autonomy and susceptibility to peer pressure in substance use; specifically, adolescents low in autonomy and refusal skills were more likely to exhibit greater susceptibility to peer pressure related to substance use. Similarly, Lebedina-Manzoni and Ricijaš (2013) demonstrated a link between maternal permissiveness and psychological control with greater levels of independence and a greater ability to oppose peer pressure. Chan and Chan (2013) found evidence suggesting that parental practices undermining autonomy within the family, such as high parental control and decision-making, led to greater susceptibility to peer influences among adolescents, while autonomy support within the family had the opposite effect. Allen and Loeb (2015) reported that adolescents were less susceptible to peer pressure and more autonomous and experience more positive later adult outcomes.

Adolescent self-esteem has been found to be associated with peer pressure susceptibility across a range of outcomes (Bax & Hlasny, 2019; Levey et al., 2019; Mier & Ladny, 2017). Adolescents with lower levels of self-esteem tend to conform to peer groups and yield to peer pressure in part to gain approval and avoid rejection (Zimmerman et al., 1997). Moreover, alcohol and drug use among adolescents have been associated with low levels of self-esteem (Stacy et al., 1992; Dielman et al., 1989). Among the predictors of adolescent self-esteem include parenting practices (Pérez-Fuentes et al., 2019), social support (Poudel et al., 2020), and school climate (Coelho et al., 2020).

Religiosity and Peer Pressure Susceptibility

One's relationship with religion has been reported as a major factor that guides an individual's behaviors, lifestyles, perspectives, and relationships with others. In different cultures, an individual's self-identification as religious and the way of experiencing religion vary. In Islamic culture, being religious has been described as a person who takes Islamic teachings as a point of view and as the basis for their lifestyle (Bilgin, 2003). Religiosity has been understood as the practice of living an Islamic identity with internalized principles, behaviors and attitudes. (Ayverdi, 2008). Belonging to religion or belief may also guide one's understanding of individual and group dynamics with which one is associated (Polat, 2019). Research suggests that religiosity is predictive of mental health outcomes (El-Awad, 2022; Hodapp & Zwingmann, 2019; Koenig & Al Shohaib, 2019), including depression (Koteskey et al., 1991) and loneliness (Johnson & Mullins, 1989) and self-esteem (Wickstrom & Fleck, 1983).

However, adolescence is a significant transitional phase for the identity journey from childhood to adulthood because adolescents begin to explore, experience, and

challenge their identities and religious beliefs with the increased capacity for abstract thinking (Erikson, 1968, Marcia, 1966; Kim & Esquivel, 2011). In this context, religiosity has been regarded as a protective factor for adolescents against engagement in risky and delinquent behaviors and a contributor to the development of positive value orientations (Pearce et al., 2003).

Most research looking at religion in the context of peer group interactions focuses on the role of the family and peer group in the promotion of certain religious practices and beliefs (Gunnoe and Moore, 2002), while also attempting to explain how parental or familial religious practices and beliefs help inform decision making (Landor et al., 2011). However, religion may also be an important determinant of relations among adolescents and exhibit a relationship with the degree to which a student is susceptible to peer pressure (Jang & Johnson, 2001; Wills, Yaeger, & Sandy, 2003), through both intrinsic and extrinsic forms or religiosity (BR & Khoirunisa, 2021). For example, Desmond, Soper, and Kraus (2011) reported that religiosity was a protective factor relative to peer pressure to engage in substance use. One possible mechanism through which this relationship may occur is higher self-esteem among religious than non-religious youth. Scales and Leffert (2004) and Bagley and Mallick (1997) found that religious participation in public and religious schools was associated with higher self-esteem levels among adolescents.

Grier and Gudiel (2010), in examining the religious attitudes of 220 adolescents, found that religion can be a protective factor related to negative peer influence. However, no distinction was made between intrinsic and extrinsic religiosity. Intrinsic religiosity exists when religion is almost like a part of an individual's biological system, whereas the motivation for extrinsic religiosity is derived from external reasons (Allport & Ross, 1967; Paloutzian, 1996). Individuals with intrinsic religiosity have been seen as people who tend to seek spiritual development in religion and experience their faith through their actions with internalized religious values. On the other hand, people with extrinsic religiosity have been regarded as ones seeking personal comfort, relief in the face of difficulties, or social desirability (Maltby, 2002).

A study conducted with 694 African-American, European-American, and Hispanic-American preadolescent and adolescent students examined the influence of intrinsic and extrinsic religiosity on psychological adjustment. Results indicated that participants with higher levels of both types of religiosity had more positive scores on the measures of psychological adjustment than participants reporting indiscriminate religiosity (Milevsky & Levitt, 2004). Results also showed that religious individuals had significantly more positive scores than indiscriminately nonreligious participants on self-esteem measures and significantly lower scores on the depression scale. Milevsky and Levitt (2004) discussed the unclear difference between religious groups. They stated that during adolescence, extrinsic religiosity may also be beneficial regarding social aspects among the peer group. Similar cross-cultural studies have found that adolescents perceive religion to exert a powerful protective influence in helping them abstain from substance abuse and engagement in other less optimal behaviors (Holmes, Briant, King-Casas, & Kim-Spoon, 2019; Mendolia, Alfredo, Walker, 2019; Pink & Fitzpatrick, 2004; Van der Meer Sanchez, De Oliveira, & Nappo, 2008).

Current Study and Rationale

According to the Turkish Statistical Institute (TUIK, 2021), the current population of Turkey consists of over 84

million individuals, and of these, approximately 15% of the population is aged between 15 and 24 years of age, as of 2019, with 29% of those between the ages of 15 and 17. Turkey is a predominantly Muslim society, and depending on the source, upwards of 90% of Turkish individuals identify as Muslim and, to a greater or lesser extent, practice Islam regularly. However, it is noteworthy that an increasing number of young Turkish people self-identify as atheists or non-religiously spirituals (Arslan, 2021).

Previous research regarding adolescents and their families in Turkey suggests that families place high importance on obedience, hierarchical structures of authority, and dependency (Palut, 2009). However, when examining parenting practices and family values, Turkey still strongly divides between the largely modern urban centers (Istanbul, Ankara, Izmir) and rural Anatolia. Based on previous work with Turkish families (see Aycicegi-Dinn, & Sunar, 2017; Fisek, 1982; Kagıtcıbaşı & Ataca, 2005; Kagıtcıbaşı, Sunar & Bekman, 1988, 2001; Sunar, 2002; Sunar and Fisek, 2005) more rural and traditional Turkish mothers emphasize greater obedience and provide less familial support for adolescent decision making and control both within the family and outside. Urban and middle-class mothers are less authoritarian and rarely engage in corporal forms of punishment, and provide more support for the emergence of adolescent autonomy and control (Coban, 2013; Sunar, 2009).

This study explores the factors influencing Turkish adolescents' susceptibility to peer pressure within Turkey's dynamic cultural and societal contexts. By examining the diverse influences stemming from traditional family values, urban-rural divides, religious dynamics, and evolving belief systems, this research sheds light on the interplay between these elements and their impact on how Turkish adolescents experience and respond to peer pressure. Understanding these factors is crucial for comprehending the complexities of adolescent behavior within Turkish society and addressing the evolving nature of peer interactions in a rapidly changing world. As Arslan (2021) highlighted, the increasing identification of young Turkish individuals as atheists or non-religious adds a layer of complexity to these influences. Moreover, insights from Aycicegi-Dinn and Sunar (2017), Coban (2013), and Fisek (1982) underscore the division between traditional family values in rural areas and the more progressive values in urban centers.

This study also aligns with the work of Kağıtçıbaşı et al. (1988, 2001), Palut (2009), and Sunar (2002, 2009), which indicate how the variations in parental approaches in Turkey, emphasizing obedience and autonomy in different settings, affect child outcomes. Additionally, the research by Sunar and Fisek (2005) provides insights into the rural-urban divergence and its implications. This study aims to contribute to a more comprehensive understanding of the influences shaping Turkish adolescents' lives and to inform strategies that can better support their development. With these considerations in mind, the current study proposes that susceptibility to peer pressure among Turkish adolescents is influenced across three levels of influence: person-based (sex, age), identity components (perceived self-esteem), and sociocultural factors (religion). The following research questions informed the current study.

RQ1: How do adolescent self-perceived autonomy, self-esteem, and intrinsic and extrinsic religiosity relate to participant age and sex?

RQ2: How do adolescent self-perceived autonomy, self-esteem, and intrinsic and extrinsic religiosity predict susceptibility to peer pressure?

RQ3: Is susceptibility to peer pressure related to whether the adolescent attends a secular or religious high school?

without prejudice; no incentive was given to students for participating in the study.

MATERIALS AND METHODS

Analytic Strategy

This study employed a quantitative research approach to investigate the research questions. This involved using several statistical procedures, including Pearson correlations, hierarchical regression analyses, and Analysis of Variance (ANOVA). Significance was set at $p=.05$ for all statistical analyses, in adherence to prevailing statistical conventions for assessing significance. The adoption of a quantitative research approach for this study stems from its capacity to offer a systematic and empirically grounded examination of the research questions. Quantitative methods enable the generation of objective and quantifiable data, facilitating the identification of patterns, relationships, and trends within the data.

Procedure

Using a non-probability convenience sampling method, participants were recruited from three high schools in Istanbul, Turkey. After obtaining permission and ethical approval from each school, the researchers distributed a questionnaire packet in 9th and 11th-grade classrooms during a single day under the supervision of the student's primary teacher. Each student was read and given a copy of an informed consent sheet that detailed the voluntary nature of the study and the possible risks and benefits before completing the questionnaire. All participation was voluntary. Each student was allowed to leave the study

Participants

The participants included 259 students enrolled in the 9th ($n=168$) and 11th ($n=89$) grades with an average age of 15.78 years ($SD=1.11$). The three schools were selected to exemplify different amounts of emphasis on religion: one "Imam Hatip" school, with a strong emphasis on religious training; one fully secular public school; and one with a moderate emphasis on religion. Males accounted for 52.1% ($n=134$), and females accounted for 47.9% ($n=123$) of the participants. Two students did not indicate their sex. Nearly one-third (31.1%) of participants reported their fathers having more than a high school education, with 23.7% of fathers completing a college education. Of mothers, 12.9% had completed any university education, and 10.4% had graduated. Nearly all participants indicated their parents were married (94.6%), with only 4.6% of participants living in divorced or separated families. See Table 1.

A post hoc power analysis using G*Power to determine the power of the regression analysis was conducted (Faul et al., 2009). A baseline sample size of 250 participants with 7 predictor variables was used for the analyses. The recommended effect sizes were as follows: small (.02), medium (.15), and large (.35) (see Cohen, 1977). The alpha level used for all analyses in the study was $p=.05$. The post hoc analyses revealed the statistical power for this study exceeded .99 for detecting a moderate to large effect using conventional standards (.80), indicating sufficient power. All collected responses were coded and analyzed using the SPSS statistical analysis software program (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.).

Table 1
Demographic characteristics of participants

Demographic characteristics	n	%
Sex		
Male	134	51.7
Female	123	47.5
Year in school		
9 th grade	145	56
11 th grade	114	44
Mother's education		
< High school	148	60.2
High school graduate	69	27
University	4	1.5
University graduate	27	10.4
Graduate school	2	0.8
Father's education		
< High school	113	44.4
High school graduate	63	24.5
University	9	3.5
University graduate	61	23.7
Graduate school	10	3.9
Marital status		
Married	245	95.3
Divorced	12	4.7

Materials

All scales, if not previously translated to Turkish, were translated using a back-translation process guided by two

academic psychology professors proficient in both Turkish and English (Hambleton & Kanjee, 1995; Geisinger, 1994). This approach helps to enhance the cross-cultural validity of measurement instruments and mitigates potential

linguistic and conceptual discrepancies (Brislin, 1970; Hambleton et al., 2004). Further, in adapting the scales to fit the Turkish context, steps were taken to ensure their appropriateness and relevance. The fact that the adapted scales demonstrated acceptable Cronbach's alpha values indicates their internal consistency and reliability. This supports the contention that the adapted scales effectively capture the constructs under investigation within the Turkish cultural framework. The adaptation process also included a comprehensive evaluation of cultural nuances and alignment. For example, references to Christianity were replaced with references to Islam to reflect the cultural environment in which the study occurred and to accurately reflect the dimensions of the constructs that hold significance within Turkish cultural norms and values. This adaptation process, coupled with acceptable Cronbach's alpha (Tavakol & Dennick, 2011), reinforces the content validity of the measurement instruments. The findings align with theoretical expectations and underscore the scales' relevance in the Turkish context, adding weight to the study's outcomes.

Self-Determination

Self-perceived autonomy was measured using the Self-Determination Scale (SDS), a short 10-item self-report measure assessing autonomy in two areas: perceived choice and awareness of self (Sheldon & Deci, 1996). The SDS asks respondents to indicate on a 5-point scale which of two statements is most true for them and to what degree. For example, item 1 has two statements: "A. I always feel like I choose the things I do. B. I sometimes feel that it's not really me choosing the things I do." Responses range from 1, "only A feels true," to 5, "only B feels true." The SDS has demonstrated good reliability, with Sheldon, Ryan, and Reis (1996) reporting alpha values ranging from .85 to .93 for internal consistency. The SDS was translated from English to Turkish and back-translated by someone fluent in Turkish and English. Each subscale exhibited good reliability, with alpha scores of .68 for the Perceived Choice subscale and .70 for the Awareness of the Self subscale. The SDS can be scored by getting an overall autonomy score or obtaining separate scores for each subscale.

Peer Pressure

To assess peer pressure, the modified version of the Susceptibility to Peer Pressure (SPP) scale developed by Sim and Koh (2003), which is based on Berndt's (1979) domain conceptualization of peer pressure, was used. The original SPP assessed five susceptibility domains: family involvement, school involvement, peer involvement, peer norms, and misconduct. Following Sim and Koh (2003), participants were asked to respond to a hypothetical situation by indicating whether they would or would not do what was asked of them in the scenario, with responses ranging from 1 ("Definitely would") to 4 ("Definitely would not"). All responses were reverse-coded so that higher scores indicate greater susceptibility to peer pressure.

Religiosity

Religiosity was assessed using the Age-Universal I-E Scale developed by Gorsuch and Venable (1983), which measures religiosity among two dimensions: intrinsic and extrinsic religiosity (Allport & Ross, 1967). The Age-Universal I-E scale consists of a 9-item extrinsic scale ("I pray mainly to gain relief and protection") and an 11-item intrinsic scale ("Prayers I say when I'm alone are as

important to me as those I say in church."). Participants use a 5-point Likert-format scale to indicate the degree to which they approve or disapprove of each statement. In this study, we used a modified Turkish version of the Age-Universal I-E scale that was prepared by Kotehne (1999). In the modified version, Christian references (e.g., church, Bible) were replaced with equivalents (mosque, Quran) suitable for a society where Islam is the dominant religion. Both scales demonstrated acceptable levels of reliability, with alphas ranging from .52 for extrinsic religiosity to .88 for intrinsic religiosity.

Self-Esteem

Self-esteem was measured using the Turkish version of the Rosenberg Self-Esteem Scale (Rosenberg, 1965) prepared by Cuhadaroglu (1986). The Rosenberg Self-Esteem scale is a 10-item scale assessing individuals' personal worth, self-satisfaction, self-confidence, self-respect, and self-deprecation using a four-point Likert-format response scale with responses ranging from Strongly Agree to Disagree Strongly. Higher scores indicate higher self-esteem. The Turkish version of the self-esteem scale used in this study exhibited good reliability with alpha = .83.

RESULTS

All scales used in the study demonstrated high reliability. Before investigating the study variables, the scores on each factor were computed, and reliability coefficients were calculated. All scales and subscales had acceptable reliability coefficients ranging from .52 to .93. An alpha of .05 was used for all analyses. Table 2 lists the mean scores and standard deviations for the four domains of susceptibility to peer pressure, autonomy, religiosity, and self-esteem.

Table 2
Means and standard deviations for susceptibility to peer pressure, autonomy, and religiosity.

Variable	Mean score (standard deviation)
Susceptibility to Peer Pressure	
Family involvement	1.90 (.46)
School involvement	2.04 (.42)
Peer involvement	2.52 (.55)
Misconduct	3.19 (.58)
Autonomy	
Awareness	3.80 (.91)
Choice	3.65 (.83)
Religiosity	
Extrinsic	2.79 (.53)
Intrinsic	3.72 (.82)
Self-Esteem	1.96 (.47)

Research Question 1

The first research questions explored whether mean levels of self-esteem, autonomy, and religiosity orientation (extrinsic/intrinsic) differed across participants' sex and age. To examine the relationship between self-esteem and sex and age, a 2 (sex) X 2 (age) factorial analysis of variance (ANOVA) of self-esteem scores was conducted. Due to its bimodal character, age was first dichotomized into 15 and younger (n=145) and 16 and older (n=114). Results

indicated no interaction effect between sex and age, $F(1, 250) = 0.61, p > .05$. Univariate analysis indicated a main effect for sex, $F(1, 250) = 5.07, p < .05$, partial eta-squared = .02, with males ($M=2.02$) having slightly higher self-esteem than girls ($M=1.89$). There was no main effect for participant age, $F(1, 250) = .02, p > .05$.

To examine autonomy, a 2 X 2 factorial analysis of variance (ANOVA) was conducted with autonomy entered as the dependent variable and sex and age entered as independent variables. Results indicated no interaction effect, $F(1, 247) = 2.17, p > .05$, and no main effects for either sex, $F(1, 247) = 1.69, p > .05$, or age, $F(1, 247) = 1.35, p > .05$, indicating that there were no significant differences in autonomy scores between boys and girls or between participants aged 15 and younger and those aged 16 and older.

Two separate independent group t tests were conducted with age and sex entered as independent variables and intrinsic and extrinsic religiosity entered as dependent variables. Results indicated no age differences for either intrinsic religiosity, $t(249) = -.59, p > .05$, or extrinsic religiosity, $t(248) = -.72, p > .05$, indicating that participants in 9th grade did not differ significantly in religiosity from students in 11th grade. There was a

significant sex difference for intrinsic religiosity, $t(249) = -1.98, p < .05$, with males having slightly higher ($M=3.81, SD=.82$) intrinsic religiosity mean scores than females ($M=3.61, SD=.80$). There was no sex difference in extrinsic religiosity, $t(248) = 1.75, p > .05$.

Research Question 2

The second research question examined how demographic characteristics, autonomy, religiosity, and self-esteem predicted Turkish adolescents' susceptibility to peer pressure across four domains of peer pressure susceptibility (family, peer, school, misconduct). Non-hierarchical regression analyses were conducted with susceptibility to peer pressure domains entered as dependent variables. The regression model for family involvement was significant, $R^2 = .21, F(7, 227) = 8.77, p < .01$, indicating that approximately 21% of the variance in susceptibility to peer pressure in the family domain was accounted for by the model, indicating that participants' age, self-esteem, and religious orientation (both intrinsic and extrinsic) contributed significantly to the model. See Table 3.

Table 3.
Summary of Regression Model for Susceptibility to Peer Pressure–Family Involvement

Variable	B	SE B	β
Participant age	0.24	.05	.26*
Participant sex	-.01	.06	-.01
Self-esteem	.14	.06	.14*
Autonomy--choice	.05	.03	.09
Autonomy--awareness	.05	.03	.11
Religiosity--intrinsic	-2.10	.035	-.36*
Religiosity--extrinsic	.11	.05	.13*

Note: $R^2 = .21, F(7, 227) = 8.77, p < .01, *p < .05$.

Table 4.
Summary of Regression Model for Susceptibility to Peer Pressure–Peer Involvement

Variable	B	SE B	β
Participant age	.40	.23	.11
Participant sex	.42	.51	.05
Self-esteem	-.28	.581	-.03
Autonomy--choice	-.03	.32	-.01
Autonomy--awareness	.33	.30	.08
Religiosity--intrinsic	1.32	.32	.27*
Religiosity--extrinsic	-.82	.49	-.11

Note: $R^2 = .11, F(7, 228) = 4.12, p < .01, *p < .05$.

Table 5.
Summary of Regression Model for Susceptibility to Peer Pressure–School Involvement

Variable	B	SE B	β
Participant age	.72	.17	.27
Participant sex	-.11	.37	-.02
Self-esteem	1.19	.42	.19*
Autonomy--choice	.19	.23	.06
Autonomy--awareness	.08	.22	.03
Religiosity--intrinsic	-.91	.23	-.25*
Religiosity--extrinsic	.15	.35	.03

Note: $R^2 = .15, F(7, 227) = 5.55, p < .01, *p < .05$.

Table 6.
Summary of Regression Model for Susceptibility to Peer Pressure–Misconduct

Variable	B	SE B	β
Participant age	-.34	.22	-.09
Participant sex	2.07	.47	.26*
Self-esteem	-1.27	.54	-.15*
Autonomy--choice	-.08	.293	-.02
Autonomy--awareness	.32	.28	.07
Religiosity--intrinsic	1.87	.30	.37*
Religiosity--extrinsic	-.82	.46	-.11

Note: $R^2 = .26$, $F(7, 227) = 11.40$, $p < .01$, * $p < .05$.

The regression model for peer involvement was significant, $R^2 = .11$, $F(7, 228) = 4.20$, $p < .01$, indicating that approximately 11% of the variance in susceptibility to peer pressure in the peer involvement domain was accounted for by the model, indicating that only intrinsic religiosity contributed significantly to the model. See Table 4.

The regression model for susceptibility to peer pressure in the school involvement domain was also significant, $R^2 = .18$, $F(7, 227) = 7.13$, $p < .01$, indicating that approximately 18% of the variance was accounted for by the model, with participants' age, self-esteem, and intrinsic religiosity each contributing significantly to the model. See Table 5.

For the misconduct domain, the regression model was significant, $R^2 = .26$, $F(7, 229) = 11.82$, $p < .01$, indicating that the model explained more than a quarter of the variance. Significant contributors to the model included sex, age, self-esteem, and intrinsic religiosity. See Table 6.

Research Question 3

The third research question examined whether any differences existed between the type of high school attended and peer pressure susceptibility. A series of one-way between-subjects analyses of variance (ANOVA) was performed with school type (religious, moderate, liberal) entered as independent variables and the four domains of peer pressure susceptibility entered as dependent variables. For the misconduct domain, the model was significant, $F(2, 249) = 15.386$, $p < .01$, partial eta-squared = .11. Follow-up post hoc analyses using the Tukey HSD test for significant mean differences indicated that students attending the religious high school scored higher in susceptibility to peer pressure ($M = 3.47$, $SE = .06$) than did students attending the moderate ($M = 3.09$, $SE = .06$) and liberal ($M = 3.04$, $SE = .06$) high schools and this difference was significant, $p < .01$.

Similarly, in the domain of peer involvement the model was significant, $F(2, 247) = 12.01$, $p < .01$, partial eta-squared = .09. Post hoc analysis revealed that students attending the religious high school again scored significantly higher ($M = 2.75$, $SE = .06$) in peer pressure susceptibility than did students from both the moderate ($M = 2.35$, $SE = .05$) and liberal ($M = 2.47$, $SE = 0.6$) high schools. The model for family involvement was significant, $F(2, 246) = 5.89$, $p < .01$, partial eta-squared = .05. Post hoc analysis revealed a significant mean difference between students attending the religious ($M = 1.77$, $SE = .05$) and liberal ($M = 2.00$, $SE = .05$) high schools. The model for the school involvement domain was not significant, $F(2, 247) = 1.80$, $p > .05$, indicating that the three groups of high school students did not differ in their susceptibility to peer pressure in this domain.

DISCUSSION

This study examined variables related to Turkish adolescents' susceptibility to peer pressure. We first examined whether there existed any gender or age differences in levels of autonomy, self-esteem, and intrinsic and extrinsic religiosity. Results indicated boys had significantly higher self-esteem and scored higher on levels of intrinsic religiosity than girls, although the gender differences were small. The finding that boys had higher self-esteem is unsurprising, as this finding has received considerable support in the literature (Quatman & Watson, 2001; Bleidorn et al., 2016). Male adolescents having higher levels of intrinsic religiosity than females may possibly be related to locus of control, as previous research in Turkey has demonstrated a significant relationship between locus of control and the type of religiosity experienced (Cirhinlioğlu & Özdikmenli-Demir, 2012).

A surprising result was that boys and girls did not differ significantly in levels of autonomy, which is different from what has been reported elsewhere (e.g., Coban, 2013). One possibility is that the sample was not sufficiently diverse in relation to several demographic considerations. Research suggests that family marital status relates to emotional autonomy (Coban, 2013). In the current study, nearly 97% of participants came from intact married families, which makes teasing out this relationship problematic.

The next set of analyses examined the possible predictors of adolescent susceptibility to peer pressure across domains of peer involvement: family, peers, school, and misconduct. The most robust finding was that self-esteem significantly predicted peer pressure susceptibility across all four domains examined. Previous research examining adolescent peer pressure susceptibility among Turkish adolescents has found similar results but limited to aggression (Yavuzer, 2014). Our study adds to this literature by expanding the domains of consideration in which self-esteem influences the effects of peer pressure. One explanation for this relationship is that adolescents with low self-esteem may reach out to peer groups to bolster their feelings of self-worth and compensate for lower levels of self-esteem (Connor, 2007). If, as discussed, Turkey families engage in greater levels of authoritarian parenting and undervalue autonomous identity development, adolescents may attempt to develop higher levels of self-esteem through peer group association, a finding supported by previous research with Turkish adolescents (see, Akdemir et al., 2016).

Participants' sex was positively related to susceptibility to peer pressure in the domain of misconduct, which includes risk-taking behaviors, with males being more susceptible. This can be partly explained by an evolutionary psychology approach, wherein adolescent male risk-taking

is a function of status-seeking and optimizing mate selection opportunities (Knoblach, 2019). More specifically, young male risk-taking has been reported to express itself in aggressive risk-taking and sexual behaviors (Pawlowski, Atwal, & Dunbar, 2008; Wilson, Daly, & Pratt, 1996). However, it was not possible within the scope of the current study to elucidate more clearly the type of misconduct male adolescents were more likely to exhibit as a consequence of peer group pressure.

The identified difference in self-esteem between male and female participants may reflect the gendered expectations and roles within Turkish society. Traditional gender norms in Turkey often emphasize distinct attributes and behaviors for males and females, which could contribute to the slightly higher self-esteem observed among males (Arslan, 2015). This finding aligns with the existing literature that suggests societal pressures might impact self-esteem differentially based on gender (Zayed et al., 2019). Such distinctions can be further attributed to varying cultural narratives around achievement, confidence, and self-worth reinforced within Turkish society.

The observed gender-related difference in intrinsic religiosity highlights the complex relationship between gender and religiosity within Turkish culture. Males' marginally higher intrinsic religiosity could reflect how cultural and familial contexts shape religious engagement. Cultural expectations and familial roles may position males as the carriers of religious rituals and practices, thus influencing intrinsic religiosity (Donohue, 2020). This finding aligns with research that underscores the interplay between gender and religiosity within different cultural settings (Kerres Malecki & Kilpatrick Demary, 2002). However, the lack of a significant gender difference in extrinsic religiosity might indicate that cultural dynamics influencing religiosity are multifaceted, and aspects like societal norms and individual experiences contribute to the nuanced expressions of religiosity.

The study's findings indicating a heightened susceptibility to peer pressure among religious school students present a compelling finding. This finding suggests an interplay between religiosity, educational contexts, and adolescents' responses to peer influences. Potential factors leading to this result include the moral and ethical frameworks instilled by religious education, the dynamics of peer networks within these institutions, and the potential effects of adhering to group norms (Carter & McCullough, 2019; Pargament, 2011). The current result, however, runs contrary to previous research findings that identify religious school affiliation to have protective effects and promote mental well-being (Estrada et al., 2023). However, some research does suggest that religious school attendance does not protect against engaging in delinquent behavior (Mocan et al., 2002). It is noteworthy that limited research has examined the role of religious school attendance on engagement in risky behavior and susceptibility to peer pressure. Contextualizing the results of the current study within the broader landscape of research on religiosity, peer interactions, and adolescent development can provide valuable insights into the distinctiveness of the observed relationship.

To summarize the remaining findings: older adolescents were more likely to succumb to peer pressure regarding family involvement than were younger adolescents. Participants' sex was a significant predictor for misconduct, with boys more likely than girls to follow peers and engage in misconduct. Self-esteem contributed positively to the family and school involvement domains and negatively to the misconduct domain. And intrinsic religiosity demonstrated a positive contribution to the

domains of peer involvement and misconduct and a negative contribution to the domains of school and family involvement.

Autonomy was not a significant predictor in any of the models. One possible explanation may relate to Turkish family dynamics, specifically the high prevalence of the authoritarian parenting style, which exhibits an inverse relationship with the development of emotional autonomy. Turkish adolescents who face authoritarianism within the parent-child dyadic relationship have been shown to be less likely to develop the identity statuses of achievement and moratorium (Marcia, 1966; Taylor & Oskay, 1995), and these higher levels of identity statuses are associated with greater autonomy across various domains and more mature interpersonal relationships (Berzonsky & Kulk, 2000).

The relationship between domains of peer pressure susceptibility and type of expressed and felt religiosity is intriguing. One contribution of the current study is that it goes beyond investigating adolescent religious practices and beliefs (prayer, perceived importance of religion, etc.) and focuses on elucidating how religion is experienced (intrinsically and extrinsically). The results in this study are mixed, as religiosity seems to exhibit differential contributions to peer pressure susceptibility across domains, with a positive contribution to the family domain and a negative contribution to peer pressure susceptibility. One curious finding was the positive relationship between intrinsic religiosity and greater susceptibility to peer pressure in the misconduct domain, a finding that seems to counter research findings suggesting that religiosity serves as a protective factor in adolescence (Holmes et al., 2019, Mojahed, 2014; Pace, 2014) primarily through the process of emotional regulation. However, other research suggests a different relationship: intrinsic religiosity and moral autonomy may lead an individual to morally justify unethical behavior (Vitell, Keith, & Mathur, 2011). While it is impossible to determine the exact nature of this relationship, the possibility of a different directional influence can be suggestive and worthy of greater investigation.

STUDY LIMITATIONS AND FUTURE IMPLICATIONS

It is worth mentioning some of the specific limitations in the current study. First, it was not possible to examine all the factors that relate to adolescent susceptibility to peer pressure, including, for example, parenting styles and attachment patterns. Future studies may examine these variables and determine their influence in mediating the relationship between person-level variables and the effects of peer pressure. However, strong evidence suggests that parenting style (Baurmind, 1971) and support for autonomy (Chan & Chan, 2009) are important predictors of peer pressure effects and peer status and are often found to be mediated by adolescent emotional regulation (Blair et al., 2016).

Second, our study used self-report measures to explore all of the variables. These self-perceptions may not correlate highly with how others perceive the adolescent and thus may bias the findings to a limited extent. Research suggests that parents and children may have different views of expressed parenting style, although the patterns of correlations demonstrate moderate levels of overlap in perceptions (Cho et al., 2020). One possibility for enhancing research validity involves employing multi-informant methods. A more comprehensive and nuanced understanding can be obtained by incorporating perspectives from different sources, such as teachers,

parents, or peers. This approach would help to mitigate potential biases inherent to self-reported responses. Furthermore, direct observation of behavior represents an alternative method that circumvents the reliance on individuals' subjective accounts. Incorporating observational techniques permits researchers to capture behavioral patterns and dynamics that may not be accurately reflected in self-reports alone.

While an advantage of this study is that it was possible to examine a relatively under-researched cultural environment and as such, is a contribution to the literature about adolescent peer pressure, the fact that Turkey is a multi-cultural society with many differences across cultural and social groupings suggests the need moving forward of exploring how peer pressure is experienced between and within these groups. Despite these limitations, this study is one of the few that has examined peer pressure susceptibility in a predominantly Muslim society through the lens of religious orientation and adolescent autonomy.

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Competing Interest

The authors declare that they have no competing interests.

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