

ON THE IMPORTANCE OF PEER INFLUENCE FOR ADOLESCENT NICOTINE USE

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ABSTRACT

BACKGROUND

Peers, smoking parents, and media are the sources of social pressure having an overriding influence on adolescents to begin smoking. Drug behaviour of adolescents is highly affected by peer influence. Although adolescent drug use is assumed to begin in response to peer group influence, peer groups have not been measured sufficiently in studies of drug behaviour.

MATERIALS AND METHODS

The study aims to measure nicotine use and its relationship with peer pressure in a cross-sectional study on high school children in Hoskote, Karnataka, India. 294 students were selected from a local high school for completing the Resistance to Peer Influence Scale.

RESULTS

This study showed that a significant difference existed between males and females regarding nicotine use. Peer pressure is a significant predictor of nicotine use. The relationship between peer pressure and nicotine is not significantly moderated by gender.

CONCLUSION

Adolescence period is a critical time for problems such as substance abuse. Past studies have discouraged the need to investigate influence of factor such as peer pressure. Hence, this study was designed to determine whether peer pressure influenced substance use among study subjects or not. Accordingly, the current study is guided by the theoretical framework of Jessor's problem-behaviour theory. The study concluded that peer pressure is a significant predictor of nicotine use.

KEYWORDS

Peer Pressure, Nicotine, Adolescent.

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BACKGROUND

Substance use can operationally be defined as the use of any substance at some period in individual's life with or without the individual developing a specific recurrent pattern¹ or dependence pattern. Substance abuse is multifactorial and various factors contribute to it viz: community, school environment, peer, family and personal factors (Brook et al., 2006; Morojele, 2009; Russel et al., 2008).^{2,3,4} The subjects often tell various reasons for substance abuse common being: distance from school, lack of social support from the parent, elder siblings or caregivers, and emotional neglect (Grobler et al 2012; Ward, 2007; Westling, Andrews, Hampson, & Peterson, 2008).^{5,6,7} These problematic behaviours beyond the factors discussed above are also due lack of resources and leisure activities (Godbey, 2009; Wegner, Flisher, Caldwell, Vergnani, & Smith, 2008).^{8,9}

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The shaping of the behaviour is often influenced by peer influence. (Padilla-Walker & Bean, 2009).¹⁰ Peer pressure is operationally formulated as a subjective feeling and experience of being pressurized, influenced, urged or dared by others to do certain uncomfortable things (Santor, Messervey, & Kusumaker, 2000; Westling et al., 2008).^{11,7} Erik Erikson argues that adolescents go through a stage of identity crisis in which they attain a sense of being from their peers while simultaneously searching for and forming an identity (Erikson, 1968).¹² Studies have further suggested that peer pressure provides a context for adolescents to explore substance use.

Aims and Objectives

- Determining if peer pressure and influence is a significant predictor of nicotine abuse among adolescents.
- Determining if gender is a significant moderator in the co-relation between peer-pressure and nicotine use.

Hypothesis

- Peer pressure is a significant predictor of nicotine abuse among study subjects.
- Significant moderator in the co-relation between peer-pressure and nicotine use among the study subjects.



MATERIALS AND METHODS

Source of data: Three taluk centric high school were taken up.

Student studying in 9th and 10th

Sample size: 296

Age: 13-15 yrs.

Inclusion Criteria

- Age group 13-15 years.
- Currently in school.
- Able to understand English.
- Parents who consented for their children to participate

Exclusion Criteria

- Co-morbid
 - ADHD,
 - Depression
 - Anxiety

Instruments

- Screening
 - Connors ADHD scale
 - HAM-D
 - HAM-A
- ASSIST
- RIP (Resistance to Peer Influence)

RIP (Resistance to Peer Influence)

1. 10 pairs of opposite items which measure statements about inter-individual interactions of peers.
2. Demonstrated good validity and internal consistency of 0.71 (Steinberg & Monahan, 2007).
3. The responses on the RPI measure range from 'very much like me' to 'not at all like me' (Steinberg & Monahan, 2007).

Study Design

Co-relational research design.

Statistical Method

Descriptive statistics, t-test, linear regression and multiple regression.

No Investigation or Interventions required.

Ethical clearance obtained.

RESULTS

	Male - n (%)	Female - n (%)
No Nicotine Use	85 (73.3%)	151 (86.3)
Nicotine use Related Problems	27 (23.3%)	21 (12%)
Nicotine Dependence	4 (3.4%)	3 (1.7%)

Table 1

Table 1. 23.3% (f = 27) of males and 12% (f = 21) of females had a nicotine related problem. The results further indicate that 3.4% (f = 4) of males and 1.7% (f = 3) of females were nicotine dependent.

	T Test	p-Value
Substance use	3.234	0.01
Peer pressure	1.301	0.194

Table 2

An independent sample t-test showed that a significant difference existed between males and females regarding nicotine use (t = 3.234, p <0.01).

ANOVA		
Model 1	F	P
	14.540	0.001

Table 3. Hypothesis 1- Peer Pressure is a Significant Predictor of Nicotine use among Adolescents

Table 3. F-ratio is significant, which indicates that the model is a good fit (F = 14.540, p <0.05). Peer pressure is a significant predictor of nicotine use, Therefore, a decrease in resistance to peer pressure leads to an increase in nicotine use. Hence, the null hypothesis was rejected.

	B	SE	T	P
Peer pressure	0.1975 (-0.4971, -0.5972)	0.2005	-0.9851	0.3254

Table 4. Hypothesis 2 - Gender is a Significant Moderator in the Relationship between Peer Pressure, and Nicotine Use

Table 4. Multiple regression confirms that the interaction score is not significant (p >0.05). This means that the relationship between peer pressure and nicotine use is not significantly moderated by gender. The null hypothesis was not rejected.

DISCUSSION

Our study aimed to measure if peer pressure was a significant predictor of nicotine abuse among high schoolers aged 13-15 years and if gender was the moderator in the co-relation between peer-pressure and nicotine use among the study subjects. The study was conducted in 3 high schools in Hoskote, which is a suburban area. The students were screened for ADHD, anxiety and depression using screening tools such as Connors ADHD scale, HAM-D and HAM-A. Among the 310 students who were screened 5 people had ADHD features, 5 people had mixed anxiety and depressive symptoms and other 4 had anxiety symptoms who were excluded from the study group. Total sample taken for the study was 294. These students were given the questionnaires, that is ASSIST and RIP (Resistance to peer influence). In our study there were 85 male and 151 female and study showed that 23.3% (f = 27) of males and 12% (f = 21) of females had a nicotine use problem. The results further indicate that 3.4% (f = 4) of males and 1.7% (f = 3) of females were nicotine dependent. An independent sample t-test showed that a significant difference existed between males and females regarding substance use (t = 3.234, p <0.01). F-ratio is significant, which indicates that (F = 14.540, p <0.05) peer pressure is a significant predictor of

nicotine use. Hence, a low resistance to peer pressure lead to an increase in nicotine use. Hence, the null hypothesis was rejected. Multiple regression confirmed that the interaction score was not significant ($p > 0.05$). This means that the relationship between peer pressure and nicotine is not significantly moderated by gender. The null hypothesis was not rejected.

Problem-behaviour theory describes specific components of the environment namely the personality system, perceived-environment system and the behaviour system¹³ represent contexts within which the adolescent develops bi-directional relationships, influencing their development and wellbeing (Jessor, 2001).¹³ Within this study, one specific system emerged as the perceived-environmental system consisted of proximal and distal social factors (Jessor, 2001).¹³ Peer pressure falls within the proximal areas; with peer pressure, adolescents feeling pressured, influenced, urged, or dared by others to use substances, in our study particular nicotine (Santor, Messervey, & Kusumakar, 2000).¹¹

A critical finding of the current study is that peer pressure emerged as a stronger predictor of substance use than leisure boredom. This is somewhat similar to Allen et al. (2012), who corroborated that peer substance use is one of the strongest predictors of relative increases in substance use among adolescents.⁹ It is also consistent with the finding by Iso-Ahola and Weissinger (1987) who argued that adolescents participate more in socializing and peer-related activities when especially bored in their free time.¹⁴

Besides the fact that peer pressure is conducive in the life of an adolescent, literature has shown that peers provide a normative regulation, and they provide a staging ground for identity development (Koepke & Denissen, 2012; Resnicow, Soler).^{15,16} According to Erikson's (1966) theory, in the adolescent phase, individuals are trying to figure out what is unique and distinctive about themselves.¹² Dumas, Ellis, and Wolfe (2012) found that identity commitment is a buffer to substance use and identity exploration is a buffer to general deviancy in more pressuring peer groups.¹⁷ Accordingly, adolescents affiliated with a certain crowd or group is likely to be influenced by the group's norms and will adopt their normative behaviours.¹⁷ In disadvantaged communities, identity is an important element in the formation of groups and safety. Having a sense of belonging becomes imperative in maintaining group relations for safety, which further contributes to a sense of place, respect and protection.

Studies examining gender differences found that significant differences occurred between men and women regarding nicotine use. This trend was similar to findings of both international and South African research regarding the fact that substance use is different across genders (Myers, Louw, & Pasche, 2011; Patrick et al., 2009).^{18,19} This trend is contrary to other studies that have found no significant differences between males and females regarding substance use (see, for example, Aloise-Young et al., 1994; Andrews et al., 2002).^{20,21} There are nonetheless some differences among findings in previous studies in terms of gender having

a moderating effect on the relationship between peer pressure and substance use. While the current study found inconsistent results for the moderating role of gender, Hoffman, Sussman, Unger, and Valente (2006)²² found a strong effect of peer association on substance use being moderated by gender. The findings of the current study were consistent with the findings by Westling et al. (2008)⁷ and Denault et al. (2012)²³ who found no significant interactions between peer associations and alcohol use moderated by gender. Although this study found that gender was not a significant moderator in the relationship between leisure boredom and substance use, Sweeting and West (2003) showed that the differences in gender influenced the change in leisure activities and patterns of substance use.²⁴ They found that gender interactions for substance use were not significant. Understanding gender differences in substance use as well as other differences among individuals presents important opportunities to incorporate this knowledge into nicotine use early intervention and treatment efforts (Shannon, Havens, Oser, Crosby, & Leukefeld, 2011).²⁵

CONCLUSION

- Peer pressure plays a vital role in nicotine abuse among adolescents
- Previous research was highlighted, and the problem-behaviour theory was discussed to form the theoretical basis for this study.
- Considering the results of this study, it may be critical to focus more specifically on managing and intervening in the adolescent's activities and behaviour with peers.
- Contribute to positive adolescent development and protect against the use of substances.

Limitation-

- Limited to school-going adolescents.
- Self-reported questionnaires.
- Examine the validity and reliability of the scale among adolescents.

Recommendations-

- Should intensify investigation into various factors of substance use, specifically exploring how these factors relate and interact with one another and their potential moderator effects on substance use.
- Specific issues including the different age, gender and geographical requirements of adolescents in relation to factors that influence substance use.
- More sophisticated analysis such as structural equation modelling with larger representative samples.

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