

PSYCHOSOCIAL RISK FACTORS INFLUENCING UNDERGRADUATE PHARMACY AND MEDICAL STUDENTS AT THE UNIVERSITY OF MALTA

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ABSTRACT

This study investigates the incidence of a number of psychosocial factors on the undergraduate students of pharmacy and medical students (N= 60) at the University of Malta. The variables that were addressed include addictions such as alcohol, smoking, soft and heavy drugs, family status, sexual activity and stress caused by course pressures, aspects of student life and examinations. The aim of this study is purely exploratory and serves to throw light on the incidence of such factors with the aim of carrying out in depth research aimed at outlining experiences, causes and support mechanisms as a follow up to this study. Findings indicate that more effort needs to be done to monitor student needs as there are salient percentage scores primarily in the use of soft drugs as well as suicidal ideation and intention to quit course.

Introduction

More often than not, physical risk factors such as force, posture and repetitive movements can be harmful to the body and can lead to people developing musculoskeletal disorders. However, research (Sun and Hui, 2007; Rutledge, Rimer and Scott, 2008; Cerwonka, Isbell and Hansen, 2000; Brodbeck, Vilen, Bachman, Znoj and Alsaker, 2010; Sim, Jordan-Green, Lee, Wolfman and Jahangiri, 2005) has shown that psychosocial risk factors also need to be taken into account, since this can also affect the mental response behaviour or adaptation of different individuals.

Nevertheless, relatively few studies (Sun and Hui, 2007) among the dearth of available research have been carried out on the psychosocial factors of undergraduate university students. In our experience, at undergraduate levels most students are known to complain about tight deadlines, high workloads, stress caused by tutor demands and supervisors, peer pressure and also exam stress. Research also indicates that these psychosocial factors have an impact on adolescent suicidal ideation (Sun and Hui, 2007; Rutledge, Rimer and Scott, 2008), incidence of depression, self-harm and violence (Rutledge, Rimer and Scott, 2008); unsafe sexual practices (Cerwonka, Isbell and Hansen, 2000; Brodbeck, Vilen, Bachman, Znoj and Alsaker, 2010); as well as drug use (Sim, Jordan-Green, Lee, Wolfman and Jahangiri, 2005).

Literature Review

Researchers have sought to examine the underlying phenomena influencing adolescent suicide so as to suggest preventive implications. These studies have adopted a comprehensive theoretical framework and examined risk factors in adolescents'

psychological system, family system and extra-familial systems simultaneously (Sun and Hui, 2007). In the study carried out by Simons and Murphy (1985), the absence of parental support was found to be a core factor contributing to adolescents' depression, anxiety, low self-esteem, hopelessness and subsequent suicidal ideation. Kandel, Raveis and Davies (1991) found that lack of closeness to parents and negative life events were the common predictors of adolescents' depressive symptoms and suicidal ideation. Sun and Hui (2007) point out that on examining the underlying factors related to suicidal ideation, two issues need to be further tackled: The first issue is that most studies have pointed to depression as the most immediate mediator of suicidal ideation, while some studies have also found that self-esteem and hopelessness were significant mediators. The second issue is that while family factors like cohesion, conflict and support have often been identified as significant predictors of suicidal ideation, relatively few studies have examined peer and school factors as other predictors. Failure to obtain peer support as well as family support has been found to be a major factor contributing to feelings of worthlessness, feelings of hopelessness, depressive symptoms and subsequent suicidal ideation among adolescents (Harter et al., 1992 in Sun and Hui, 2007). Girls tend to look for closer friendships and disclose more to their friends leading them to feel they have high levels of esteem support from their peers and to rely heavily on peer support as a way of evaluating their self-worth (Harter, 1987). Academic issues namely test anxiety, academic self-concept and perceived parental dissatisfaction with academic performance are significant factors contributing to adolescent depression (Lee, Wong, Chow and McBride-Chang, 2006).

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Between 35% and 50% of adolescents experience depression at some point during their teenage years (Christopherson and Jordon-Marsh, 2004; Roberts and Chen, 1995). Such adolescents who, as a result of their being might belong to a subculture such as for example the Goth Subculture, focus on the things that wrong with the society and in their lives. They surround themselves with peers who have similar views, music that focuses on angry and depressing thoughts and websites and reading material that focuses on the dark side of life. They may easily become angry, irritable or tearful with some focusing on suicide and death and may suffer from either insomnia or hypersomnia and have decreased interest in activities that they once enjoyed (Rutledge, Rimer and Scott, 2008). The same authors proclaim that between 7 to 14 % of adolescents will participate in self-harming activities and that this is more prevalent in males than in females. Between 20% and 40% of adolescents experience suicidal ideations (Christopherson and Jordon-Marsh, 2004; Roberts and Chen, 1995).

Research also considers psychosocial factors to be predictors of unsafe sexual practices (Cerwonka, Isbell and Hansen, 2000). In a study carried out by Oswald and Matsen (1993) in Cerwonka et al, (2000), 25% to 40% of sexually active students reported never using condoms or even decreasing their condom use as the number of partners increased. This is not due to lack of knowledge about HIV thus leading to the conclusion that knowledge is necessary but insufficient as a requirement in reducing high risk activities (Boyer and Kegeles, 1991). Young adults who reported sexual risk behavior at baseline were five times more likely to have had similar risky sex later (Brodbeck, Vilen, Bachmann, Znoj and Alsaker, 2010). Moreover although only 15% of the students believed that they would ever contract HIV, 36% believed a friend could and 59% believed that AIDS would become widespread in society, suggesting a pattern among young adults of "perceived invulnerability" for oneself but not for others (Fisher and Misovich, 1990 in Cerwonka et al., 2000). Cerwonka et al. (2000) also report that the effect of peer influence on behaviour is a widely researched phenomenon that has shown to influence young adult risk behavior concerning drug use, crime, cigarette smoking and sexual activity. Winslow, Franzini and Hwang (1992) ascertain that perceived peer norms are a major predictor of HIV risk behavior and conclude that students who tend to engage in a high amount of risk behavior also had a peer group that engaged in similar behavior. In addition, they also reported perceived peer norms to be a major predictor of resistance to

change in response to AIDS. Alcohol and drugs also have a strong relationship to sexual risk taking. Other situational factors found to be related to risk behavior include the number of partners and the length of sexual experience, with college students reporting that as sexual experience increases the use of condoms decreases (Oswald and Matsen, 1993; Zelnik and Kantner, 1980 in Cerwonka et al, 2000).

Sim, Jordan-Green, Lee, Wolfman and Jahangiri (2005) maintain that addressing the psychosocial correlates of ecstasy might be helpful in developing prevention approaches for college students because the increase in ecstasy use, social expectations and risk-taking beliefs appear to be significantly associated with experimenting with substance use (Manning et al., 2001 in Sim et al., 2005). Some studies have indicated that misperceptions of social norms for the frequency of substance use are significantly associated with college students' substance use. Research by Sim et al. (2005) confirms that ecstasy initiators compared to marijuana initiators would be more likely to have an earlier onset of initiating substance use and engage in binge drinking and frequent marijuana use; perceive that a greater number of their peers used alcohol and other drugs; report more negative consequences from substance use; and perceive less risk with substance use.

Sawatsky, Ratner, Richardson, Washburn, Sudmant and Mirwaldt (2008) indicate that whereas reducing the number and intensity of stressors experienced by students might be viewed as the most efficient means of improving the mental health of students, recent research about resilience indicates that the experience and successful management of stress represent a critical component of adolescent development (Campbell-Sills et al., 2006 in Sawatsky et al., 2008). Rutter (2006) conceptualizes resilience as a process as well as a personal characteristic that can be developed over time and in response to the exposure to and subsequent effects of stressors (sometimes referred to as the "steeling effect") (Rutter, 2006). Sawatsky et al. (2008) indicate that similar to other published literature, they found that the stress students experience is directly related to increased levels of depressive symptoms. A substantial portion of this relationship appears to be mediated through the students' perceived ability to recognize and manage their stress (namely their resilience) when the stress is an impediment to academic performance.

Methodology

Three separate questionnaires with 10 questions each were explained and the online link was disseminated during one of the lectures of the stu-

dents. Item format was mixed in that some of the questions made use of a fixed-response Likert Scale whereas others were open-ended. The questionnaire was disseminated to 113 medical students and 138 pharmacy students. Students were left entirely free to participate. The questionnaire was administered to a group of students from 2nd, 3rd and 4th year Pharmacy Students and 2nd year Medical students in the academic year 2012/2013. Students replied anonymously online and results were instantaneously submitted and compiled electronically. Qualitative answers were analyzed and grouped together by means of content analysis while quantitative answers were analyzed using Microsoft Excel so as to issue descriptive data in the form of percentages. The response rate of this survey was 24% for the first questionnaire and 20% for the second and third questionnaires respectively.

Results

The results shall be explained into two separate sections. The first section will deal with the sample composition and shall explain the demographic characteristics. The second section shall focus on the results of the survey itself.

Demographic Data

Seventy eight percent of the students were between 18-20 years while 22% of the students were between 21-29 years. Thirty-five percent of the students were male while 65% were females.

As regards to place of residence, 67% of the students hailed from North of the Maltese Islands whereas 33% were from South.

Eighty percent of the students resided within a family with happily married parents, 13% from a family with satisfactory married parents, thus 93% of the students that answered this questionnaire were coming from a family with parents enjoying a relatively stable and happy marriage. The other 7% of the students included those living with married but unhappy parents, separated parents and divorced parents. None of the students were coming from families whose parents had attained an annulment for their marriage.

Survey Results

Students indicated that 67% of them responded as being sexually active while 33% declared that they were not.

In an open-ended question asking students to describe how they felt about examinations, students replied that they felt anxious, stressed, nervous, suffered bad moods, panicked, stressed out and de-

pressed. In a subsequent question which focused on their reaction due to stress, 22% answered that they would consider quitting their course, 8% want or sometimes feel like ending their lives, 30% seek support from their friends and 49% find family support. In this question, students were allowed to tick multiple options. In another question, students were asked how they cope when they feel down. Twenty-six percent declared that they seek help from nobody. Furthermore some declared that they could not summon enough courage or guts in order to seek help. The majority of students wrote that they seek help from one or more of the following: Boyfriend/Girlfriend, Sister, Friends and Mother/Family members.

Students were also asked about substance use. Thirty percent opted not to answer this question. All the students (100%) have experienced alcohol, 54% of the students make or made use of smoking, 17% experienced or make use of soft drugs while none of the students that answered this questionnaire made use of any hard drugs.

Discussion

From results it can be shown that most of the students reading medicine or pharmacy in their 1st, 2nd or 3rd year at the University of Malta are aged between 18 and 20 years. In a culture such as the one we have at the Maltese Islands which is very close knit, most students lack life skills and experience in life making them vulnerable to all sorts of influences. Thus their university experience should not only be one based on academic but should also include life skills such as how to work in groups, how to manage stress and problems, how to deal with relationship problems and how to live a healthy lifestyle. Most courses at the University of Malta are content based and lecturers are not concerned with passing over skills to students. These skills should be built into course curricula.

There was a greater percentage of students hailing from the North of Malta (67%) as compared to the South (33%) of Malta. This might indicate that students hailing from the North of Malta have access to better schooling and better educational facilities. It could also be that students who reside in middleclass families who are more likely to reside in the North of Malta would be oriented to these courses as they have the potential of being high earners once they graduate. It is a known fact that some students would already possess a pharmaceutical outlet run by the family of origin and that most students studying to become medical doctors would have that profession running in their family for generations. This is an aspect of our research which

would undoubtedly require further investigation. Nevertheless, policy makers in compulsory education should ensure that children and adolescents are given the opportunity to follow the same courses.

Most of the students (93%) were coming from families whose parents enjoy a relatively stable and happy marriage. This might indicate that stable families with both parents residing at the same residence are able to support their kids in a better manner in order to further studies at higher levels. (ref) The current trend in Malta unfortunately is that of growing broken families (Sunday Times, 2011). Since the incidence of separations is always on the rise, it is imperative that the educational system, both at primary, secondary and tertiary level, takes into account different family forms and their impact on the educational progression of our students. More investment with regards to support staff is definitely needed in the form of outreach programmes in order to support students.

One also notes that 67% of the students in our sample were or are still sexually active while 33% are not or have never been. The percentage of Maltese students that are sexually active is relatively lower compared to students having the same age group from Long Island University, USA. (Cerwonka, E.R., Isbell, T.R. & Hansen, C.E., 2000) These results do not mean that students do not need to be educated about relationships and about being sexually safe. More needs to be done in this regard and further research to investigate the trends in sexual activity among university students and how this (dis)informs their ideas about relationships. The reasons for which young adults (19 to 29 age bracket) in the national survey engage in sexual activity are "lose my virginity", "friends all doing it" and "curious" and further research needs to ascertain whether students' ideas at the university are similar and whether such experiences are influencing their life in general as well as their studies. The incidence of sexually active students in our sample for this research is still high when compared to those attained recently on a National level in October 2013 (Directorate for Health Information and Research, 2013).

Most common feelings about students' exams were anxious, stressed, nervous, bad mood, panic, stress and depression. For me this is quite worrying. An educational system should not foster stress but should be there for students to make learning an enjoyable experience. It should allow them to be creative and help them to showcase their knowledge and competence in a subject matter. Here we find that exams are used as a means of control in

that they are a final sentence/decision that could either make or break a career of an individual. Most of the times, exams are unfair because they do not allow students to show their diversity of skills. Examinations tend to measure students using the same yard stick and do not reflect the true and diverse potential of a candidate. A candidate that obtained a higher mark does not mean that he or she is a better student than others and that in the future they will do better career wise. Such studies demonstrating the degree of predictive validity of university examinations in this regard still need to be carried out as most studies (Paganini and Seghieri, 2003; Kuncel, Hezlett and Ones, 2001) have been limited to predicting success at university from undergraduate entrance exams.

The most salient finding of this preliminary research is the fact that 8% indicated that they want or sometimes feel to end their lives while 22% answered they will or at some point or another wanted to quit their course. This calls for immediate action in this regard as this is a clear cry for help by some students. Not enough resources are being invested in support systems as there is no outreach programme and no youth workers employed to assist students at the university.

Another cause for concern relating to the data gathered in this survey is the way we are teaching our students. It strongly seems that our education system and University academic life fosters an environment of survival of the fittest. Thirty percent of the students ask for support from their friends while 49% of the students seek support from their families. It seems that most students do not ask for any support but results in this regard are inconclusive. This might mean that students do not think it to be necessary or it might mean that they do not have anyone to resort to. None of the students mentioned the University Counselling Services or the Chaplaincy as a place to resort to in time of need. Moreover, we should take a good look at what we are offering in our curricula. There is more to teaching than merely passing on content to our students as they should be taught skills such as for example working in groups, discussions, practical taught work and supervised work placements in the industry. Moreover we need to seriously look into the impact of computers and internet on the potential social isolation of students.

Students were also asked about their use of alcohol and drugs. The fact that 30% opted not to answer this question is in itself a clear avoidance of the argument. All the students (100%) have experienced alcohol, 54% of the students make or made

use of smoking, 17% experienced or make use of soft drugs while none of the students that answered this questionnaire made use of any hard drugs. The use of alcohol amongst University of Malta students seems to be higher than University of Newcastle upon Tyne, UK students (55%) (Webb, E. et al., 1996). The rate of soft drug use amongst students at the University of Malta seems to be lower than students at University of Newcastle upon Tyne, UK (57%). (Webb, E. et al., 1996) but higher when compared to students at Stockholm's University (7%) (Borschos et al., 1999).

Conclusion

This preliminary study has served as an indicator of the lifestyle and coping mechanisms that students are adopting at university. Two main results need to be taken seriously into account. The first is that pertaining to those 8% who stated that at points they wished to terminate their life. The second are those 22% who wish to quit their course. We have recommended that the university invests heavily in support programmes and also on a more holistic curriculum which better equips students for their future jobs. We are also recommending avenues for future research in that this study needs to be carried out across other faculties to take stock of the situation and also needs to be carried out repeatedly to monitor any fluctuations and to direct support service mechanisms accordingly.

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