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High risk behaviour in adolescents: Understanding the interplay of various factors

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Abstract---Background: High-risk behaviours are a set of behaviours which pose an increased risk of physical, social or emotional problems to an individual and society at large. These behaviours manifest as violence, substance use, risky sexual behaviour, suicide, and eating disorders. Adolescence is the age group that has the highest propensity for detrimental impact by the adverse consequences of such high risk behaviours. The available literature in related fields bears extensive information regarding the factors leading to high risk behaviours in adolescents. In spite of these in depth studies and well explored facts, there is a lack in required interventions at a grassroots level to contain this issue. The aim of this article is to review the literature in this area and provide comprehensive insights pertaining to the factors contributing to high risk behaviour in adolescents. It also looks at suggesting a way forward. It provides comprehensive insights pertaining to the factors contributing to high risk behaviour in adolescents. It concludes, high risk behaviour in adolescents is not a phenomenon that can be attributed to a single factor. It is an interplay of various factors that determine, influence and make adolescents more susceptible to risk taking. There is a need to link these studies and connect what exists in theory with practice for greater effectiveness of interventions to control high risk behaviours in adolescents. At the same time more theoretical research needs to be initiated to gain newer insights and understandings in this area furthering the cause for development of targeted intervention strategies.

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Introduction

High-risk behaviours are a set of behaviours which pose an increased risk of physical, social or emotional problems to an individual. The impact of these is far reaching in the sense that these not only impact over all development of an individual but have a resultant impact on the overall functioning of a society. Though these behaviours might be perceived as bringing certain short term positive benefits to the individual but are detrimental to larger goals of any society over time. High risk behaviour (HRB) therefore becomes an important factor to discover more about. Though HRB can impact all age groups, however the adolescents are most impacted by such behaviours since they are at a period of rapid mental, physical, social and emotional changes and HRB tendencies can negatively impact these growth phases. HRB in adolescents is seen as "disorder of misdirected motivation and impaired self-control"(1). It has serious implications in terms of both "morbidity and mortality" in adolescents (2).

While outwardly, adolescents start to look like adults, internally they are still going through major changes. Neuro-biologically, their brain's cortical development is not complete until they reach their mid-20s. Owing to the still developing Pre-Frontal Cortex in brain, their executive functioning skills like decision making, consequential behaviour and future oriented thinking, are not fully available to them and the hyperactive and impulsive limbic system overrides the reflective prefrontal cortical system (3). With the dichotomy of new expectations or responsibilities and mental faculties that are not yet fully developed, adolescents also become highly susceptible to stress. In order to get away from and cope with stress they tend to get drawn into high risk activities without being completely cognizant of the consequences of such acts (4).

High risk behaviours are of various types but violence, substance use, risky sexual behaviour, suicide, and eating disorders are considered to be the HRBs of significant concern. (5). A strong inter-relationship in terms of one leading to another has been established between various HRBs like substance use, sexually transmitted diseases (STDs), teen pregnancies and violence amongst adolescents (6). This implies that various HRB in adolescents do not prevail in isolation and their co-occurrence is a common phenomenon. It therefore becomes imperative to understand the various Determinants, Susceptibilities and Influencers of HRB in adolescents. To bring in the operational definitions, a determinant can be defined as a factor that decisively affects nature or outcome of something (*Definition-Oxford dictionary*). Influencer can be an individual or group that influences the behaviour or opinion of others (*Definition-Cambridge dictionary*). Susceptibility is lack of inherent ability to resist some extraneous agents (*Definition-Meriam-Webster dictionary*).

The current paper aims to contribute by reviewing some of the available relevant literature and presenting a succinct overview in light of these studies. It uses the available literature to provide a comprehensive picture and categorize HRB into Determinants, Susceptibilities and Influencers of HRB in adolescents. It also

discusses how the prevalent information can be appropriately used for future actionable intervention strategies and studies so as to form a link between theory and practice.

Method

A review of published studies most of which were authored 2000 onwards, was performed to identify the factors influencing HRB in adolescents. The findings of this article aim to provide evidence-based critical information to address the problem of HRB in adolescents and design focused interventions. It will also identify perceived gaps and suggest areas for further studies.

Research Question

What are the major factors that determine, influence and make adolescents susceptible to HRB?

Article Search

Numerous online resources published in English language were considered for the review. These included peer- reviewed journal articles and reports in the areas of adolescent HRB for both male and female adolescents in the age group of 13-19 years of age. Keywords like Adolescents, HRB, Adolescent brain, risky behaviour, parent-adolescent relationship, peer relationships in adolescents, adolescent mental well-being, influences & determinants of adolescent HRB, risky sexual behaviour in adolescents, and drug use in adolescents were used for targeted search of the relevant literature. A reference list was created using Mendeley. These relevant studies were briefly overviewed for initial screening and the most relevant ones to the title of the paper were selected for in-depth study to understand their findings as detailed herein after in this paper.

Scope of the Research

The paper focused on studies that provided information on following domains:

- Factors that make adolescents more susceptible to HRB
- Factors that influence HRB in adolescents
- Factors that determine HRB in adolescents

Based on the above information presenting a factor-wise objective overview of all the researched domains and suggesting the implications of their findings in developing focused interventions for adolescents to control HRB in them..

Discussion

The following major factors came up as contributing to HRB in adolescents:

Identity Styles

Identity styles are the way adolescents approach problems and maintain their sense of identity or sense of self (14). Identity styles are classified as:

- Informational style in which an individual is problem focused, feels independent, seeks social support and does facilitative use of anxiety.
- Diffuse-avoidant style where an individual uses emotion focused coping tactics, seeks pleasure, gets into social distancing and engages in wishful thinking & procastrinates.
- Normative style where an individual avoids the stressor, sticks to value systems, and focuses towards stress reducing coping mechanisms (15).

A study on 205 adolescents also established that addiction vulnerability was higher in Diffuse-avoidant style and lower in Normative and Informational styles (16). Another study conducted on 384 adolescents revealed Informational style and Normative style have negative correlation with HRB tendency while the Diffuse-avoidant style bear a positive correlation with HRB tendency amongst adolescents (17).

Peers

Studies show that in order to gain acceptance adolescents tend to confirm more to their peers than adults (28). Peer socialization is an essential part of adolescent development. Success amongst peers is an essential component of adolescence. In the process to gain acknowledgement and acceptance, they tend to become more like their peers in behaviour and attitude which includes various high risk activities (29). Evidence suggests peer interactions lead to amplification of problem behaviours in early to late adolescence. Adolescents are more likely to indulge in HRB in the company of their peers than when alone (30). Even High risk behaviour of tobacco use in Adolescents is influenced by peer pressure. This was evidenced to be so influential that even the selection of peers happened to be based on their smoking status (31).

Family

Studies show that family has a great influence on adolescents. Family conflicts leading to poor monitoring by parents is also a contributory factor in adolescents engaging in risky habits (32). Among familial and extra-familial factors, family based factors are believed to have greater influence on adolescents with respect to risky behaviours. In a family system that is secure and parents are seen as stable and united adolescents display stable behaviour despite of changing environmental factors. Families with challenges like conflicts causing less available care for adolescents and resulting in strained family relationships, financial instability, lack of sex education by family, lack of discipline where parents themselves engage in drinking or risky sexual behaviours, absence of parents, volatile environment influence adolescents negatively and lead to their engaging in HRB (33). World Health Organization states that there is a crisis due to early sexual engagement among adolescents leading to unplanned pregnancy and sexually transmitted diseases, it is imperative to shift focus on encouraging

adolescent friendly familial set-ups that have parents/caregivers who are empowered to support the adolescents (34).

Internet Use

Diagnostic and Statistical Manual of Mental disorders; 5th Edition (DSM 5) by American Psychiatric Association (APA), has included Internet Gaming Disorder as behavioural addiction (35). In a study conducted with 11356 school going adolescent with a mean age of 14.9 years it was concluded psychopathology and suicidal behaviour are strongly related to pathological internet use. When participating adolescents were divided into 3 categories of type of internet users i.e. Pathological Internet Use (PIU), Adaptive Internet Use (AIU) and Maladaptive Internet Use (MIU), it was seen that prevalence of psychopathology, depression, suicidal ideation and attempts, conduct problems, anxiety, and hyperactivity were much higher amongst PIU as compared to AIU and MIU (36). In a study conducted to understand relationship between internet addiction and Self-Injurious behaviour in adolescents, it was seen that there is a strong and significant association between the two. It was concluded that post adjustment of confounding variables, 100% of internet addicted adolescents showed increased risk for frequent self-injury (37).

Relationship with Parents

It is widely observed that merely increasing awareness amongst adolescents has negligible impact on preventing them from getting into HRB based on the consequences of such acts. Rather, parental guidance has shown to have a lasting impact on the reduction of HRB taking in adolescents. Establishing a healthy parent-adolescent communication is very much needed to prevent HRB amongst adolescents (38). The relationship with parents is seen as a key deciding factor in involvement of adolescents in HRB like drug, tobacco, alcohol use, violence, and sexual relationships. Monitoring by parents and effective communication play a great role in preventing drug initiation It also delays the initiation of alcohol consumption and sex. It has an impact on decreasing risk taking behaviours among adolescents (39).

Another study conducted on HIV prevention in adolescents concluded that increasing parental involvement in communicating transmission awareness among adolescents is one of the key strategies to accomplish the goal of HIV prevention amongst adolescents (40). Poor bonding and poor quality communication between parent and adolescent and misconduct by parents weaken the support system for adolescents and might lead to their getting attracted to risky sexual behaviour at an early age (41). Authoritarian parenting, that exhibits strict control and monitoring with low emotional involvement and reduced daily conversation has negative effect the parent-adolescent relationship (42).

Social Relationships in School

In a study conducted on 930 secondary school students, it was reported that those students who perceived low school social cohesion were more likely to

engage in suicidal ideation, binge drinking, drug use and physical fights (43). The National longitudinal Study of Adolescent health identifies school social connectedness as a protective factor for high risk behaviour (44). Supportive social relationships act as protection against adolescent HRB. High perceived social cohesion and high perceived parental social support have a positive impact on reducing risk taking behaviour like violence, suicidal ideation, substance use and risky sexual behaviour (45).

Other Determinants

Apart from the above determinants there were others too that were found to trigger HRB in adolescents. With respect to early tobacco use amongst adolescents it was reported that major factors leading to this HRB that need greater research and understanding are low socioeconomic status, poor academic achievement, lack of school support, low self-efficacy in refusing to use and poor self-image (50). Mood and need for relief from negative affect also play a role in adolescents engaging in risky behaviour of substance use (51).

Key Findings

Based on the review of above literature the key findings can be categorized within broad domains of Influencers and Determinants, and can be summarized as below:

Influencers

Looking at high impact of peers on adolescent HRB measures need to be taken in managing “Peer Contagion”. Though peer aggregations are seen as strong options for intervention strategies it becomes imperative to monitor the amount of time in a group specifically where the interactions are unstructured or poorly supervised, establishing prosocial norms where peer aggregations are there, providing training in behaviour management and supervision to teachers and other adults interacting with adolescent groupsWith respect to the family, right now the practices in education and counselling limit family-oriented interventions to only those adolescents who have displayed HRB. In view of above studies it is seen that it will be a good practice to invest in developing strong, empowered family relationships which can actually check emergence of HRB. Interventions must be made as family-centred as possible (55).Studies related to impact of internet use give a clear indication that if internet use is checked at MIU stage it can lead to stopping the behaviour from becoming pathological thereby addressing HRB before it manifests itself in adolescents. Making the Internet Use Questionnaire available to parents and educators of adolescents can go a long way in identifying and checking internet use at an early stage

Determinants

The reviewed studies indicate that parental relationship bears a powerful impact on the reduction of HRB in adolescents. A limited cognitive ability and insufficient reasoning in adolescents needs clear and open communication with parents. Therefore, the models for intervention must have clear roles for parents to play to

maintain effective communication in the adolescent-parent relationship. This implies that it is important that adolescents feel supported by parents and society. It is their perception of support that plays a key role rather than the actual support provided, hence community living with inter dependent societal relationships can be a positive contributor in avoiding HRB and conscious efforts need to be put to accomplish this goal. With self-control being one of the key determinants of HRB in adolescents, it can be a good practice to train adolescents in Self-control. With adolescents having greater tendency to get stressed, challenging tasks can overwhelm them. Here the stakeholders need to take responsibility of mapping these tasks out for adolescents. Breaking the larger goals into short, medium and long-term goals can make them feel more in control of things thereby having a reduced need to seek instant gratification as a coping mechanism and more self-control.

Result

A large number of empirical studies have been conducted and published in the area of adolescent HRB during the past two decades. Put together, these studies gather a body of knowledge that brings emphasis on the need to address various factors that lead to HRB in adolescents. It is also evident that HRB in adolescents is not a phenomenon that can be attributed to a single factor. It is an interplay of various factors that determine, influence and make adolescents more susceptible to risk taking. Therefore, any strategy that looks at addressing this issue has to include all these factors. However, there seems to be an absence of studies that integrate the individual findings and deal with the impact of associations and interactions between various independent and dependent variables. This makes designing effective interventions and linking theory with practice to address the issue of HRB in adolescents, a challenge.

Conclusion and Suggestions

Though a lot of research has happened that has considered various factors contributing to emergence of HRB amongst adolescents, the interplay of various social, psychological, emotional and physiological factors need to be studied in greater depth to further understand and resolve this issue. Most of the research in this field is still emerging. At this juncture, more studies driven by theory need to be taken up to better our understanding, test our assumptions, decide the next steps and integrate the findings in this area. Approaches involving data analytics to bring forth the interaction of above discussed complex theoretical factors and demarcate positive and negative factors can greatly serve the purpose. Moreover, there is need to develop sustainable and culturally relevant models that aim at engaging adolescents, their parents/ primary caregivers, schools, community, health care systems, legal set-ups and policy makers to achieve the desired results. A discussion of how to develop these is not in the scope of this paper and opens up possibility for further research.

Conflict of Interest Notification

'The authors declare that they have no competing interests. The purpose of the study is to gain greater insights into the factors that lead to risk taking behaviour

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