

The Unique Influences of University Students' Satisfactory and Dissatisfactory High Risk Drinking Experiences on their Readiness to Change

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Abstract

This exploratory study investigates the individual influences of satisfaction and dissatisfaction with alcohol consumption on readiness to change high risk drinking behaviours. The research involves a comprehensive survey of students from a large university in Australia. As reasoned by previous researchers, high risk drinking behaviour is prevalent amongst university students in Australia. Separate measures are used to measure satisfaction and dissatisfaction with alcohol consumption, and readiness to change high risk drinking behaviours is measured in terms of *drinking actions* (i.e., drinking less) and *social interactions* (i.e., discouraging friends from drinking). The findings show dissatisfaction has a significant impact on both readiness to change high risk drinking behaviours whereas satisfaction only influences readiness to change in terms of *social interactions*.

Keywords: satisfaction, dissatisfaction, consumption experiences, readiness to change, binge drinking

Title

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Introduction

High risk drinking (defined by Oei and Morawska 2004 as four or more drinks for women and six or more drinks for men per drinking episode) remains as one of the biggest social issues in the world today (Leigh and Neighbors 2009). "Alcohol is the most commonly used drug in Australia" (O'Hara et al 2008, 7) and the Australian Prime Minister labelled high risk drinking as being in epidemic proportions in 2008 (www.news-medical.net 2008). Specifically amongst university students this is a serious problem, as 44% have been classified as high risk drinkers in the US (Morawska and Oei 2005), with the Salvation Army reporting similar figures in Australia (www.salvationarmy.org.au). Studies exploring cognitive factors leading to problematic use of alcohol primarily focus on drink related expectancies (McNally and Palfai 2001). More specifically, the majority of these studies test the impact of positive alcohol expectancies (e.g., fun, social and sexual enhancement, tensions reduction) and the fewer studies which incorporate negative alcohol expectancies (e.g., behavioural impairment, poor physical and mental well being) have produced inconsistent results (McNally and Palfai 2001). To shed some light on the inconsistent findings, this study examines evaluations of alcohol consumption experiences rather than alcohol expectancies. More specifically this research explores the different way satisfaction and dissatisfaction with alcohol consumption experiences impact on the readiness to change high risk drinking behaviours.

Literature Review and Hypotheses Development

Many studies have shown customer satisfaction has a positive impact on customers' favourable behavioural intentions such as repurchasing or recommending a product or service. The willingness to reuse a service is strongly associated with customer satisfaction and also the extent of customer experience (Burton et al. 2003, Wang and Lo 2002). A recent study found positive emotions and negative emotions impact differently on customers' behavioural intentions towards restaurants (Yang and Namkun 2009). Thus, there is a need to distinguish between satisfactory experiences (i.e., positive emotions) and dissatisfactory experiences (i.e., negative emotions). Dissatisfaction has been addressed in various contexts in the marketing literature, with the primary focus on complaining behaviour; seeking redress, negative word of mouth, and exit behaviour (Andreassen 2000, Phau and Baird 2008, Richins 1983, Singh and Pandya 1991). To date, the social marketing literature does not address the influence of satisfactory and dissatisfactory experiences with socially undesirable behaviours.

Behavioural intentions with respect to high risk drinking has been defined in terms of readiness to change (for operational definitions see the Brief Readiness to Change Questionnaire developed by Rollnick et al 1992) and the Stages of Change Readiness and Treatment Eagerness Scale (Miller and Tongian 1996)). Whilst research on high risk drinking behavior does not examine the impact of satisfaction and dissatisfaction with alcohol consumption on readiness to change drinking behaviours, it does differentiate between positive and negative outcome expectancies. For example, Fitchett and Smith (2002) found positive outcome expectancies reinforce future consumption, whereas negative outcome expectancies cause cessation of usage. Ramsey et al (2000) found negative alcohol expectancies are an effective method to increase readiness to change behaviour. Similarly, McNally and Palfai (2001) found negative not positive emotions predict readiness to change binge drinking behaviors. This paper extends these studies by investigating how evaluations of alcohol experiences rather than alcohol expectancies impact on readiness to change high risk drinking behaviors. As is the case with alcohol expectancies studies, this study differentiates between positive experiences (satisfactory evaluations) and negative experiences (dissatisfactory evaluations). Furthermore, two distinct readiness to change constructs are examined, namely, readiness to change alcohol consumption (e.g., drink less), and readiness to change in terms of social interactions (e.g., discourage friends to drink). In summary this study tests the following hypotheses:

H_{1a} – Satisfaction with the high risk drinking experience will decrease the readiness to change action component.

H_{1b} – Satisfaction with the high risk drinking experience will increase the readiness to change social component.

H_{2a} – Dissatisfaction with the high risk drinking experience will increase the readiness to change action component.

H_{2b} – Dissatisfaction with the high risk drinking experience will decrease the readiness to change social component.

Methodology and Constructs Purification Results

The sample frame for this study are students (aged 18 years and older) attending undergraduate lectures of various divisions at a large university in Australia. Several studies have justified university student samples due to the higher prevalence of alcohol use and associated problems associated with that cohort (Morawska and Oei 2005). To help identify students who engage in high risk drinking a screening question asked if the participant had engaged in high risk drinking in the previous 4 weeks. The data collection entailed a self-administered survey which was completed during the lecture. The sample comprised a total of 462 students (53.7% male and 95.2% of respondents aged between 18 and 25). 57.1% of those students last engaged in high risk drinking less than 1 week ago, and the mean number of times a student had engaged in this behaviour within the past four weeks was 4.5.

The satisfaction with high risk drinking behaviour measure was adapted from the Satisfaction With Activity scale developed by Arnould and Price (1993). The six

satisfaction items were presented in a 7 point Likert scale format (e.g., My last drinking experience was really worth it) and yielded a Cronbach alpha reliability score of 0.88. Due to the lack of established measures of customer dissatisfaction a scale had to be constructed. Chow and Zhang (2008) suggest to simply measure satisfaction and dissatisfaction by creating opposite pairs of questions was used. Generally this approach was used to generate items that measure students' dissatisfaction with high risk drinking behaviours. All the constructs used in this study were pilot tested on 54 undergraduate students who indicated they engaged in high risk drinking. The Cronbach alpha score for the dissatisfaction construct made up of four 7 point Likert scale items (e.g., I am unhappy with my last high risk drinking experience) was 0.76. An exploratory factor analysis (Principal Component Analysis, Varimax with Kaiser Rotation, KMO=0.86, Bartlett's Test of Sphericity Significance = 0.000, Total Variance = 63%) of the all the satisfaction and dissatisfaction items loaded separately on two factors thus indicating that students differentiate between satisfaction (Eigenvalue = 3.62, loadings range from 0.82-0.71) and dissatisfaction (Eigenvalue = 2.64, loadings range from 0.79-0.71) derived from high risk drinking behaviours.

The Readiness to Change Questionnaire containing twelve items (developed by Rollnick et al 1992 and used in recent studies e.g., Epler et al 2005) was used to measure readiness to change high risk drinking behaviour. Four additional items were added to capture peer group behaviours such as "discouraging friends from engaging in high risk drinking behaviours". The scree plot of a Principal Component Factor Analysis (Varimax with Kaiser Rotation, KMO=0.73, Bartlett's Test of Sphericity Significance = 0.000, Total Variance = 57%) on eight RTCQ items and three additional social interaction items (i.e., excluding cross loading items from a preceding factor analysis conducted on all 16 items) suggested two readinesses to change factors. Four "action" items (e.g., drinking less, changing drinking habits) loaded on the first factor (Eigenvalue = 2.81, loadings range from 0.84-0.69). Four "social interaction" items (e.g., encourage drinking games, encourage excessive drinking) loaded on the second factor (Eigenvalue = 2.16, loadings range from 0.79-0.56). Reliability analyses produced a Cronbach alpha of 0.79 for the "action" and 0.64 for the "social interaction" readiness to change constructs.

Hypotheses Testing Results and Discussion

To test the hypotheses multiple regression analysis was conducted using the items derived from the preceding analysis. The first regression analysis with "action" (readiness to change) as the dependent variable and the satisfaction and dissatisfaction constructs as independent variables ($F = 35.74$, Sig. 0.000, Adj. Rsquare = 0.14) revealed only dissatisfaction has a significant influence (Beta = 0.38, $t = 7.92$, Sig. 0.000). The second regression analysis with "social interaction" (readiness to change) as the dependent variable and satisfaction and dissatisfaction as independent variables showed both independent variables have a significant influence ($F = 34.13$, Sig. 0.000, Adj. Rsquare = 0.13). More specifically, the regression results show "social interaction" is significantly influenced by both the satisfaction construct (Beta = 0.21, $t = 4.39$, Sig. 0.000) and the dissatisfaction construct (Beta = -0.23, $t = -4.88$, Sig. 0.000). Note, as the "social interaction" construct is worded in "negative" readiness to change terms (e.g., I encourage

my friends to engage in drinking games). Thus, social interaction is positively related to satisfaction and negatively related to dissatisfaction. Regression analysis with a singular combined satisfaction and dissatisfaction construct (i.e., a summary variable calculated by subtracting the average dissatisfaction score from the average satisfaction score) as the independent variable produced slightly lower Rsquare results when regressed with both readiness to change dependent variables (“Action”: $F = 46.04$, Sig. 0.000, Adj. Rsquare = 0.09, Beta = -0.31, $t = 6.79$, Sig. 0.000; “Social Interaction”: $F = 49.99$, Sig. 0.000, Adj. Rsquare = 0.10, Beta = -0.32, $t = 7.07$ Sig. 0.000).

Overall, the results clearly highlight the need to differentiate between satisfaction and dissatisfaction derived from socially undesirable behaviours. This exploratory research shows that satisfaction and dissatisfaction with socially undesirable behaviours are two distinct constructs, and give differing results when related to various dependent variables such as readiness to change constructs. More specifically, the results suggest dissatisfactory evaluations of high risk drinking induce students to change their drinking habits and refrain from encouraging their friends to drink excessively. Whereas satisfactory evaluations have no impact on changing drinking habits and more alarmingly induce students to encourage friends to drink excessively. This is in line with alcohol expectancy research and the Revised Expectancy Motivation hypothesis (REMH) theory which suggests “positive expectancies may predict motivation to drink alcohol, whereas negative expectancies may be more related to motivation to restrain” (McNally and Palfai 2001 p.723).

Implications of Results

Assessing a patient’s readiness to change has been regarded as an essential part of targeting interventions aimed at changing health-damaging behaviours (Heather et al 2008). More specifically, “...understanding the change process in college drinking patterns is of strong interest to both researchers and clinicians” (Smith and Tran 2007, p.2282). This study shows that dissatisfactory experiences motivate university students to change high risk alcohol consumption. Thus intervention campaigns should be designed to trigger negative memories of student’s high risk drinking behaviours. For example, a university may consider placing posters depicting unhappy drunk individuals at alcohol drinking venues. Perhaps negative experiences associated with excessive drinking could also be addressed in student mentoring programs to induce students to change their drinking habits and refrain from encouraging friends to drink excessively.

Limitations and Future Research

While this study suggests satisfying and dissatisfying alcohol consumption experiences have unique influences on university students readiness to change their high risk drinking experiences, several limitations need to be taken into account. Firstly, the population of this study is restricted to adult university students. Binge drinking is also a problem with

adolescents and young people who do not attend university. The prevalence of underage drinking in Australia has recently been highlighted by Doran et al (2009). Thus, it would be of interest to explore if the findings of this research extend to the illegal underage drinking context.

While the satisfaction construct and dissatisfaction construct used in this study were adequate to pick up their unique influences on readiness to change high risk drinking behaviours, future studies should develop more sophisticated and robust satisfaction and dissatisfaction scales that take into consideration different experiential elements. For example, students may differentiate between experiences during the high risk drinking episode (e.g., having fun) and experiences after the high risk drinking episode (e.g., feeling physically unwell). This requires the development of multidimensional measures which capture different types of experiential outcomes with high risk drinking behaviours. The alcohol expectancy literature (e.g., Fitchett and Smith 2002; Ramsey et al 2000) identifies a broad range of positive outcomes (e.g., having fun, social and sexual enhancement, tension reduction) and negative outcomes (e.g., behavioural impairment, poor physical and mental well being) associated with high risk drinking. Thus, the positive dimensions could be used to operationalise a satisfaction with high risk drinking measure and the negative outcomes could be used to construct a dissatisfaction with high risk drinking behaviour scale. More robust measures may improve the Rsquare scores, however additional influencing variables (e.g., recent drinking consequences, exposure to intervention strategies, self efficacy) may also have to be included in future studies to better predict readiness to change high risk drinking behaviours.

As is the case with behavioral intention studies of consumers, caution must be exercised when extending the findings regarding readiness to change high risk drinking behaviours to actual changes in alcohol drinking habits in the future. Longitudinal studies could be conducted to assess the impact of satisfactory and dissatisfactory high risk drinking experiences on actual alcohol consumption over time. Blume et al (2006) conducted research which tracked adults who abuse alcohol to assess the impact of recent drinking consequences on motivation to change and alcohol consumption. Similarly, follow up studies could be conducted with university students who engage in high risk drinking.

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