

IMPACT OF ADDICTIVE BEHAVIOR AND AGGRESSIVE TENDENCIES ON QUALITY OF LIFE OF VELO USERS.



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A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY
in partial fulfillment of the requirements for the degree of
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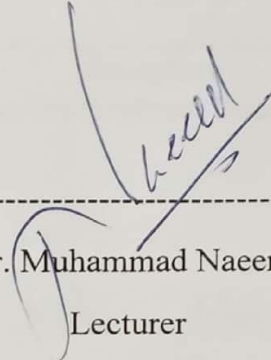
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July, 2023

CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled “Impact of Addictive Behavior and Aggressive Tendencies on quality of life of Velo users” carried out by Mahnoor Ejaz, Reg. No. BSP193074, under the supervision of Mr. Muhammad Naeem, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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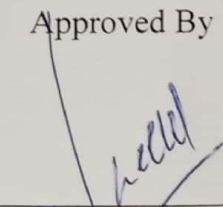
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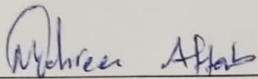
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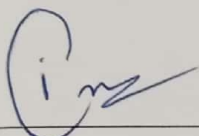
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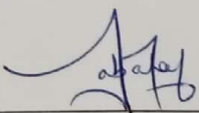
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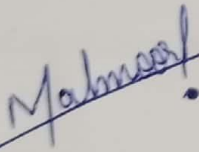
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June, 2023

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ABSTRACT

Addiction towards substance is very common now a days in which cigarette is the most common and easily available drug. Previous studies suggested that cigarette smoking effects quality of life and increases aggressive tendencies. So, to decrease the effect of cigarette new alternate form of drug (Velo) was introduced which has no Tabaco and carcinogens in it but have the tendency to be addictive and produce addictive behavior. So, this study aims to investigate the relation of addictive behavior and aggressive tendencies on quality of life of Velo users. In current study, addictive behavior questionnaire, WHO quality of life questionnaire and buss and Perry aggression questionnaire will be used on 200 male and female participants of age 18 – 35 from all over Rawalpindi and Islamabad. SPSS was used to analyze the data. Descriptive, correlation, t-test will be used to obtain the result. The findings of this was a slight difference in gender in Man Whitney table in addictive behavior of males and females and there is a positive significant correlation between addictive behavior and aggressive tendencies and quality of life is negatively correlated with addictive behavior.

Keywords: Velo users, addictive behavior, aggressive tendencies, quality of life.

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Chapter 01: INTRODUCTION

Now a days, addiction towards substances is a very common action which we see specially in young and older adults which includes males and females as well. Addictive behavior effects our life style on daily basis as it lowers our self -esteem and also have a negative consequence which people recognize but still keep on doing it due to addiction towards a specific substance. Other than smoking a new trend has been emerged in today's world which are called nicotine pouches in which there is also a category called Velo. The problem aroused here when people started taking Velo as an addictive substance which urged them to produce more addictive behavior and led them towards consuming more addictive substances. This product basically contains white nicotine powder instead of tobacco and carcinogens which makes it less harmful than cigarettes yet addictive (Meagen *et al.*, 2019). Addiction is basically derived from a Latin word for bounding/ enslaving. Three unique symptoms of addiction include yearning for the addictive substance, losing control over using it, and continuing to use it despite negative effects.

Addiction has a lengthy and strong impact on the brain (Harvard medical school, 2022). Addiction is known by intoxication or withdrawal symptom features. The brain processes that these addictions stimulate can also be used to describe them; for example, dopamine extracellular levels are often increased by the majority of addictive substances (Wise & Robble, 2020). Addiction It is said to be an alternate for people who willingly wants to quit smoking but can't due to a severe addiction towards cigarettes thus this product helps them with their nicotine intake so that there is less craving for smoking. Researches says that these nicotine pouches as a new emerging trend is more likely to become an addiction very soon due to its easy availability and covered usage (Khan *et al.*, 2021). Addictive behavior is also well-defined as the

obsessive substance use in spite of the undesirable penalties and longing for outcome other than ache release (MD, 2020)

Velo nicotine pouch is made of pure nicotine which ranges from 4MG to 11 MG. it has cellulose fibers, high quality ingredients, inducements and flavoring. It has different ranges to suit your nicotine consumption as high or low as you want. In this way this product has different strong point to taste as much nicotine you require to fulfil your craving (Velo official website, 2020). Moreover, Velo was produced with a positive motto and it came as an alternate for cigarettes which had no tobacco and carcinogens in it. It only contains a very less amount of nicotine but people here in Pakistan started misusing this product and in progress they got addicted to this nicotine pouch as well.

Addictive behavior

Addictive behavior is basically the impulsivity and the urge to perform a repetitive behavior knowing that it has a negative consequence (Mastropietro *et al.*, 2022). It is basically addiction of anything mostly drugs. A person fails to function properly in his or her daily life and the environment is also affected by the behavior (Cherek, 1981).

Addictive behavior is always learned and no human being or animal is born with the learned behavior of addiction. This type of behavior is always self-destructive whether the addiction is towards any type of drug, alcohol, tobacco or nicotine (Vincent, 2015). Addiction was basically called a brain disease and this was not the right term so it was changed to a bad habit which have the ability to be changed through the will power of human being. Furthermore, addiction is a very severe condition which make its trail towards the brain of a human in immeasurable ways and manifest itself

and become harmful and produces the behavior of addiction which becomes permanent. (Thombas & Osborn, 2019). Addiction towards drugs leads it to drinking pathways whether it be addiction of anything like drugs, alcohol, nicotine powder etc. (Marlatt *et al.*, 1988)

Addiction towards nicotine pouches were studies in Dutch males and females and it has been proved that people are less aware about these oral nicotine pouches where as they are also addictive to them less people showed high addiction which were taken under the study. This study also showed that adolescents are also the ones who have addictive tendencies towards these pouches. (Havermans *et al.*, 2021)

Aggressive tendencies

Aggression is defined as a behavior which has 4 types which contain verbal aggression, physical aggression, anger and hostility. Studies also suggest that human beings show aggressive behavior and produce aggressive tendencies when related with a high dosage drug which can be very harmful and aggression can come out on anyone in the environment or on the individual himself (Hoaken & Stewart, 2003).

Aggression is mostly linked with anger as studies suggest that people who get angry easily have the tendencies to produce aggression fast and have a negative effect on mental as well as physical health (Pond *et al.*, 2012). Moreover, other literature showed that people with high self-control are very less likely to be aggressive in critical situations they face (Thomas *et al.*, 2012)

Another study define aggression with the concept that there are 2 types of aggression. Proactive and reactive. These helps understands the evolution of aggressive behavior displayed by humans as in the context of expressions, provoking factors, functions of development and pathways which are neutral in human beings (Richard,

2017). Aggression is more common in boys and they show verbal aggression and girls are more likely to show indirect aggression towards their surroundings. This is what is meant in a society for girls and boys and also studies approve the fact that boys are more vulnerable to produce aggressive tendencies (Johnie *et al.*, 2018)

Quality of Life

The questionnaire of WHO for measuring quality of life it says that QOL is defined as how an individual perceive their position in life with respect to context, culture and value system in which they are currently living with different relationships, goals expectations and apprehensions. Quality of life is defined as the perspective of an individual in different domains of their lives (Felce & Perry, 1995).

Researches also suggest that quality of life improves when you design and change your lifestyle from time to time. It brings positive change in the lives of human beings as well as their mental and physical well-being. Past literature also suggest that quality of life improves when you design and change your lifestyle from time to time. It brings positive change in the lives of human beings as well as their mental and physical well-being. People usually try to have quality of life as perfect as they others having it so now a days it has been seen in our society that there is a lot of comparison on individual's quality of life. Studies also suggest that quality of life is a multifaceted concept in different societies and is also interpreted differently in various domains of health and sciences (Haraldstad *et al.*, 2019).

Literature review

The addictive behavior towards any substance use specifically cigarette is directed towards violence and this is very common and understood. People who are daily smokers are somehow connected with fierceness and aggressive behavior.

Smoking behaviors are related to violence so there is highly a need for people to look out for these behaviors (Lewis *et al.*, 2016).

Another study quotes that an experiment which was only done on males gives us an outcome which states that males were taken under the study and they were deprived and non-deprived of nicotine substance and its results proved that highly deprived group showed highly aggressive behavior towards themselves and their environment (Parrott & Zeichner, 2001).

Moreover, another study quotes that cigarettes helps diminish strain and it stated that effect of nicotine on mood is sex-dependent and it reduces aggression and anxiety in young women and it has opposite effect on young men (Jarrett, 2000). Furthermore, another study outputs the results of a lab experiment in which 3 groups were formed and each was given different situation which included no smoking, smoking a low nicotine dose and smoking a high nicotine dose. In this experiment money was another factor to check the aggressive behavior which was that money was removed and placed from the participant to check the reaction and more subtraction of money resulted in more aggressive behavior (Cherek, 1981).

Nicotine, the active ingredient in tobacco products, including nicotine pouches, is a highly addictive substance that can affect mood and behavior. Studies have shown that nicotine can increase feelings of irritability, anxiety, and anger, which can lead to aggressive behavior (Benowitz, 2009). In addition, nicotine can disrupt the balance of chemicals in the brain that regulate mood, leading to changes in behavior and emotional states. These changes can cause individuals to feel more reactive and prone to aggression (Bruijnzeel, 2012).

Addictive behaviors can cause aggression in a number of ways. For example, when an individual is unable to engage in the behavior they are addicted to, they may become irritable and prone to anger. This can be especially true if the addictive behavior is related to a substance, such as alcohol or drugs, which can alter an individual's mood and emotional state (Sinha, 2008). In addition, the compulsive nature of addictive behaviors can lead individuals to prioritize their addiction over other important responsibilities, which can lead to conflicts with friends, family, and loved ones. This can also contribute to feelings of anger and aggression (Zvolensky, 2020).

Cigarette smoking in some countries is slowly declining in prevalence, hence the tobacco industry has started looking for other alternatives for delivering nicotine in different forms. One of the alternatives is oral nicotine products, ONP's. Velo is a type of ONP (O'Connor, 2022). Nicotine pouches are slowly gaining popularity in the past 3 to 4 years. Different brands of nicotine pouches such as Zyn, On! And Velo was used in a study. The study explored how much advertisement the oral nicotine pouches get. Velo's headlines focused on freedom and was emphasized as an innovative brand (Duan *et al.*, 2022).

These "tobacco-free" nicotine pockets are comparable to traditional tobacco goods like moist snuff and snus in terms of pH and nicotine concentration. Despite the absence of numerous tobacco-related compounds, the majority are strongly flavored, which could encourage beginning users to try more. It is crucial to look at and take into account these novel tobacco goods as they pertain to tobacco governor investigation, strategy, and practice since nicotine pockets may demand to a range of users, from beginner to skilled users, depending on their tastes of nicotine levels (Stanfill *et al.*, 2021).

The amount of Velo users has increased rapidly between 2018 and 2021. In 2018, Velo, marketed as a tobacco permitted nicotine stuff tossed on the Swedish market. Research investigated how Velo is advertised and what are the reasons behind the usage of velo among younger people. Results found out that group identification for young people is important and it is a predicting factor for Velo use among them (Sandberg and Alstam, 2022).

Tobacco use is a dangerous issue in Pakistan. New tobacco free drugs are being introduced to replace cigarettes and smoking. One such product which is referred to as a nicotine pouch or nicotine lozenges, is Velo. The promotion of Velo is to make it trendy (Saeed et al., 2022). Products similar to Velo are also referred as oral nicotine products. They are informal to hide, are obtainable in a diversity of flavors and as they do not contain tobacco spray, are gaining popularity. Since 2016, sales of ONP have increased a lot and are slowly becoming popular among youth. Research conducted in USA explored the impact of ONP on US youth. Results found that whilst the use of ONPs is less popular among US youth when you compare it to tobacco products such as cigarettes, individuals are more prone to use an alternative if its present. In this case, since ONP's offer more flavors, high chance of being concealed and can be more attractive to individuals who do not want to use nicotine foods (Liane *et al.*, 2022).

Research conducted on 3516 people on high school students in Southern California. The study was conducted to find out the prevalence of nicotine pouches, cigarettes, e-cigarettes, waterpipe, cigars, cigarillos, snus and non-tobacco nicotine products that were oral such as gummies, gum, lozenges and tablets. The results reported that the oral nicotine products that were non-tobacco had the second most prevalence of being a nicotine product that was used by adolescents. Nicotine bags were

excessively used by specific cultural, traditional, sensual or gender marginal groups or the people that have a history of nicotine use (Harlow *et al.*, 2022).

With several major tobacco firms now offering "tobacco-free" nicotine pouches, a new product category is starting to take shape. Similar to snus, these items are marketed in pre-portioned pouches, but instead of tobacco leaves, they are filled with a white powdery substance that contains nicotine. The pouches, which are positioned between the lip and gum, don't need to be spited or refrigerated. At least five significant cigarette companies now market nicotine pouch products. British American drugs offers Lyft in the United Kingdom and Sweden, as well as Velo in the United States of America. Zyn is sold by Swedish Match in Europe and the USA⁵, Dryft is sold by Kretek International in the USA¹, and Nordic Spirit is sold by Japan Tobacco International in Sweden. Because they include nicotine produced from tobacco, these goods are probably categorized as tobacco products in the US. The classification and regulation of nicotine pouches in various nations, as well as the applicability of current tax, youth-access, marketing, and other tobacco control laws, are all unknown. (Robichaud *et al.*, 2020).

Oral nicotine may be appealing to beginning grownups who do not already practice tobacco or nicotine products but are interested in nicotine alternatives that don't expose them to smoke. To compare variations in pouch observations and use willingness across nicotine/tobacco use positions, data from a 2020 distant digital survey of a continuing regiment education of undeveloped grownups from S. California 19-23 years old was used. 1167 members who had not ever used nicotine pockets observed writing and pictures from mass-marketed pouch wrapping and promotion before answering questions about their readiness to practice nicotine, their perceptions of the harm caused by using them, and whether they would select cigarettes or e-

cigarettes completed them in a hypothetical situation. Users of non-combustible only pouches (33.8%), combustible alone pouches (29.3%), and dual pouches (43.9%) showed considerably higher preparedness to practice pouches than people who do not use it (14.7%). In all, 52.4% of contributors were unsure of if pouches were not as much of dangerous than e-cigarettes or cigarettes, and 49.1% were unsure of either. Perceptions of relative damage were not substantially different according to cigarette use status. In comparison to non-users, those who used non-combustible products (either by themselves or in tandem with flammable tobacco) were additional probable to say they preferred e-cigarettes over nicotine bags. In dissimilarity, all tobacco invention handler clusters indicated higher likelihood of choosing cigarettes over pouches than non-users. In conclusion, a sizeable proportion of young individuals would be open to trying nicotine pouches, although the majority are unsure about the proportional risks (Vogel *et al.*, 2022).

Pharmaceutical studies are increasingly including measures of quality of life. Numerous medical specialties, including drug addiction maintenance treatment programs, can benefit from this. Although maintenance therapy has been shown to be an effective treatment for opioid addiction, there are currently no measures specifically designed to assess the effects of maintenance programs on quality of life, and there have been few attempts to date to evaluate how opioid dependence and its treatment affect drug-addicted patients' quality of life. This article's goal is to describe the quality of life idea, assessment tools, selection criteria, and studies on drug addiction maintenance that can use it (Giedrius *et al.*, 2004).

Health status in a number of chronic diseases has been correlated with health literacy. There is, however, little proof that health literacy affects mental health outcomes. In people with drug dependency and substance abuse like chemical

addiction, low literacy would be linked to greater addiction severity, higher levels of depressive symptoms, and lower mental health functioning (Lincoln *et al.*, 2006). Statistics show how widespread the issue of drug addiction is, which typically starts in childhood and persists throughout life with negative effects on health and quality of life (QOL) (Lincoln *et al.*, 2017)

A study conducted by Eefa Manzar and colleagues in Lahore showed that almost 70% of the students are aware of the smoke-less tobacco pouches and e-cigarettes and participants were more likely to believe that this product known as Velo can help them quit cigarette and is less addictive than usual cigarette (Manzar. E *et al.*, 2021)

Another study conducted by Talha Nawaz in 2023 states that nicotine pouches like Velo are being exported in Pakistan very swiftly and almost everyone is unknown about their hostile effects which can cause more trouble to an individual's health and decrease their quality of life (Nawaz. T *et al.*, 2023)

Theoretical Framework

Social learning theory was developed by Albert Bandura in 1977. The theory which supports this study is social learning theory. In social learning theory mostly all the behavior is said to be learned through the environment whether it be addiction or aggression.

Addictive behavior occurs when you see people in your environment being addicted to something, whether it be a chemical like drugs or it can be anything. This theory supports the idea that our environment can be as dominant as our genetics and it can affect our psychological health to an extent that an individual can become addicted

to anything. Observation of behaviors can alter our thoughts in many ways and leads to addiction which is learned from the human's surroundings (Cherek, 1981).

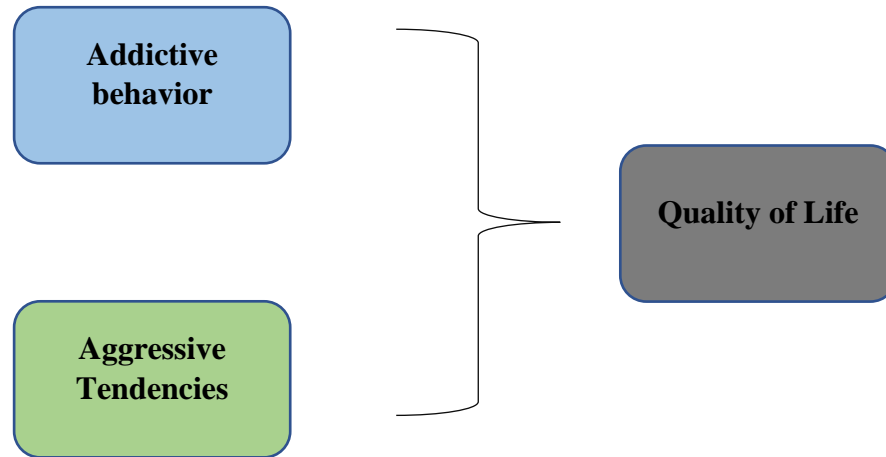
Moreover, if we talk about aggression, this theory supports aggression in many ways as well. People usually think that showing aggression can lead to a reward or they can become dominant by being aggressive on other people. Social learning theory suggest that aggression basically derives from social labelling and this is the main cause which produces aggression in people. People who have aggressive tendencies are more vulnerable to produce aggression quickly as compare to the individuals who don't have aggressive tendencies. This theory also supports the idea that environment aggravates individuals and hence they are provoked by environment to show aggression to certain situations.

Moreover, another theory which is used in this study to support the Quality of life is the theory which is given by **WHO** in 1948. This theory supports the quality of life in the context of the individual's perception of their position in society, culture, values and concerns about the physical health. It also includes their goals, concerns related to every minor details of their life and also their expectations towards everything they are surrounded by. Quality of life is basically what a person wants to have in the eyes of the society they are living in. Both of these theories relate with this research objectives because addictive behaviors and aggression can be learnt from the environment and can easily manipulate individuals to reappear with these behaviors.

Conceptual Framework

Relationship between addiction and aggression can be found in previous studies as they suggest. The past researches have shown that there is very strong relation between addiction and aggression among young and older adults ranging from age 18 to 35

(Merrikkh et al., 2018). So, the conceptual framework which is being used in this study is:



Rationale

The significance of this study is that Velo is relatively a new emerging trend in Pakistan. It has been seen that to avoid the use of cigarettes, people have started using nicotine pouches which includes a product, Velo. It is free of carcinogens and tobacco which reduces its harmful effects on the health of the users and the users also perceive it by like this. They believe that this product will cause less harm than cigarettes that's why they prefer using this despite the fact of the unknown adverse and hostile effects of this substance (Manzar *et al.*, 2021). To study the effects that how these nicotine pouches produce aggressive tendencies and addictive behavior towards it, this research is being conducted so that it can be seen that whether these nicotine pouches are a reason for aggressive tendencies towards the surroundings and the addiction towards it or not. This study will surely serve as a base for further research on Velo effects on various levels and literature for researchers researching on this topic as there are very few researches due to this being a new trend in Pakistan. Furthermore, this study can help us to know about the quality of life of Velo user by the factor's, addictive behavior and aggressive tendencies.

Objectives

The objectives of this study are:

- To study the relationship between addictive behavior and quality of life among Velo users.
- To study the relationship between aggressive tendencies and addictive behaviors among Velo users.
- To find out the difference between males and females' addictive behaviors, aggressive tendencies and quality of life.

Hypotheses

- H1: There will be a significant relationship between addictive behavior and quality of life among Velo users.
- H2: There will be significant relationship between aggressive tendencies and addictive behaviors.
- H3: There will be significant difference among males and females' addictive behaviors, aggressive tendencies and quality of life.

Chapter 2: METHOD

Research Design

Cross-sectional research design was used in this study. Basically, cross-sectional research design is distinct as the method in which the data is collected at the same time from the participants. The respondents in this study are selected due to interest in a particular variable. The main goal of this study is that to check the quality of life of people who use Velo along with aggressive tendencies and addictive behaviors produced or existed so we have a particular variable which is Velo and we have checked the people who have keen interest in it to measure the addictive behaviors present in them, aggressive tendencies and quality of life so the best suited research design to this study is cross-sectional research design.

Ethical Considerations

First of all, participants were briefed about the study. They were told that for what purposes this study is being conducted. After a brief conversation a consent form was given to the participants in which explained purpose of the study was written for them to read. After reading the participants were asked to do their signatures on the consent form to confirm the willingness of their participation in the study. They were also given the right to withdraw themselves from the study anytime they like or feel uncomfortable. They were also told that the names will be kept confidential. Furthermore, the consent form demand demographics just for the sake of the research purposes and those demographics of the participants were not used outside this research whereas the results were only shared with the supervisor for the research purposes. The responses on the questionnaires were also kept confidential and only shared with the supervisor if needed for the checking of data entry and analysis.

Sample

In this study, 200 participants (males and females) young and older adults were taken on board for data collection whereas the sample size is calculated by G-Power. The sample size has been taken from people who are young and older adults probably aging from 18-35 because the youth starts taking drugs like this when they enter their professional or university life due to peer pressure and the stress of fitting in the society by gaining the best job or starting a successful business. A very important factor in this is family influences and less knowledge of harmful effects which leads to addictive behavior towards the substances like nicotine pouches or smokeless tobacco (Gayle et al., 1989)

Inclusion Criteria

As this study contains sensitive questions about the daily life usage of drugs there is some set inclusion criteria so that the researcher can be able to take the exact sample from the population. Inclusion criteria which was set for the purpose of this research was:

- Participant must be a Velo user
- Participant must not have any Psychological and Physical Disability
- Participant must be a young or older adult
- Participant must be from Rawalpindi and Islamabad

Exclusion criteria

Exclusion criteria for this study was set as people who does not fulfil the criteria can be easily excluded from the research as the study requires specific population which not everyone can fulfil so the Exclusion criteria was:

- Participants with psychological and physical disabilities
- Participants who are not addicted to Velo.

Sampling Procedure

The sampling procedure used was convenient for males and snowball sampling for females. Convenient sampling is one of the techniques which comes under non-probability sampling. This technique identifies that the sample is chosen from the population which is readily available and is not randomly selected from the population. Participants are selected who are obtainable and easily accessible for the convenience of the researcher. This technique is a simple technique through which a large amount of data can be collected in a short time. Furthermore, when you research on the subjects which lies under tough to grasp population this technique is really helpful because this allows the researcher to gather the data very quickly and efficiently. Whereas snowball sampling is also a type of non-probability sampling in which the participants are asked to assist the researcher in the collection of the subjects related to the study. This type of sampling technique is used when the researcher is facing difficulty in collection of the accurate data or the sample from the population refuses to give information on a very sensitive topic such as addiction to any drug or reporting their own addictive behavior and aggressive tendencies.

Measures/ Instruments/ Scales

ABQ Scale

For measuring the variables, the researcher used addictive behavior questionnaire to measure addictive behavior which was developed by Valentina Lucia la Rosa, Alessio Gori, Palmira Faraci, Carmelo Mario Vicario and Giuseppe Craparo in 2018 with reliability 0.89 and contains 34 items. This measure easily assessed addictive behaviors present in Velo users (Gori *et al.*, 2018)

WHO- QOL Scale

Quality of life is being measured by WHO-QOL- BREF questionnaire which was developed in 1998 to measure quality of life having different domains including psychological, physical, environmental health and social relationships and this scale is valid with reliability of 0.896 and contains 26 items (Flanagan *et al.*, 1998). *WHO-QOL-BREF* on Pakistani culture ranges from 0.72-0.92 respectively (Lodhi *et al.*, 2017)

Buss-Perry Aggression Questionnaire

To measure aggression the Buss- Perry aggression questionnaire is being used which was developed by Buss and Perry in 1992 to measure aggression with test-retest reliability of 0.78 containing 29 items. This measure easily assessed the aggressive tendencies present in the Velo users through its items which represented verbal, physical and psychological aggression (Buss, A. H. & Perry, M. (1992). According to researches on a Pakistani culture the reliabilities last from 0.81-0.86 respectively.

Procedure

The data collection was done using 3 scales which are for addictive behavior, aggressive tendencies and quality of life. First of all, the consent form with detailed explanation was added to data collection form and after that a google form was created through which the data was collected from the participants.

Furthermore, the participants were briefed about the reason of filling the questionnaires in the google form. Any difficulty or query will be resolved by the researcher through contact number or email both provided to the participant. Then the forms will be sent among the target sample from the population and they will be asked to fill the questions honestly. They will be briefed that it is mandatory to fill every question and no statement cannot be left unfilled. After this the research started gaining

the responses on the google forms on daily basis and it took almost 2 months to collect the whole data of 200 Velo users

Chapter 3. RESULTS

The purpose of this study was to explore the addictive behaviors and aggressive tendencies on quality of life of Velo users. This chapter presents the results of the study including descriptive statistics for demographic variables, frequencies, reliability analysis of the scales and correlation.

Sample characteristics

The total sample was 200 participants which were specifically Velo users in which 64 were females and 136 were males. The demographics characteristics of the of the participants are illustrated in the table given below.

Table 1

Frequencies and percentages of demographic variables of the participants (N=200).

<i>Demographic variables</i>	<i>f</i>	<i>%</i>
Gender		
male	136	68.0
female	64	32.0
Birth order		
eldest	71	35.5
Middle child	83	41.5
youngest	46	23.0
Employment		
yes	68	34.0
no	132	66.0
Academic status		
intermediate	43	21.5
undergraduate	111	55.5
MS	41	20.5
PHD	5	2.5
Relationship		
single	162	81.0
married	32	16.0
divorced	6	3.0

Note: *f* = Frequency, % = Percentage.

Table 1 indicates the demographic variables and their frequencies and percentages. Demographic variables include gender, birth order, employment, academic status, relationship. According to the above table, the result showed that males (f = 136, % 68.0) were more than female (f = 64, % = 32.0). Table also showed that middle child (f = 83, % 41.5) had high frequency and percentage than eldest (f = 71, % = 35.5) and youngest child (f = 46, % = 23.0), unemployed (f = 132, % = 66) had higher percentage than employed (f = 68, % = 34). Table also showed that years single (f = 162, % = 81) had high percentage and frequency than married or divorced (f= 32, %= 16).

Table 2

Descriptive statistics and alpha reliability of the measures (N=200)

Scales	Items	α	M	SD	Range		skew	kurt	K-S	P
					Actual	Potential				
AQ	29	.94	87.9	23.3	29-145	29-145	.08	-.114	.08	.000
QOL	26	.92	81.1	16.9	42-124	26-130	.49	.18	.10	.000
ABQ whole	25	.78	11.0	3.4	A: 0-17 B: 4-32	A: 0-17 B: 0-40	-.81	.40	.14	.000

NOTE: M = Mean, SD = Standard Deviation, α = Alpha Reliability, Kurt = Kurtosis, Skew = Skewness, K-S = Kolmogorov – Smirnov, AQ Buss and Perry aggression questionnaire, QOL= Quality of life, ABQ= Addictive behavior questionnaire.

Figure 1

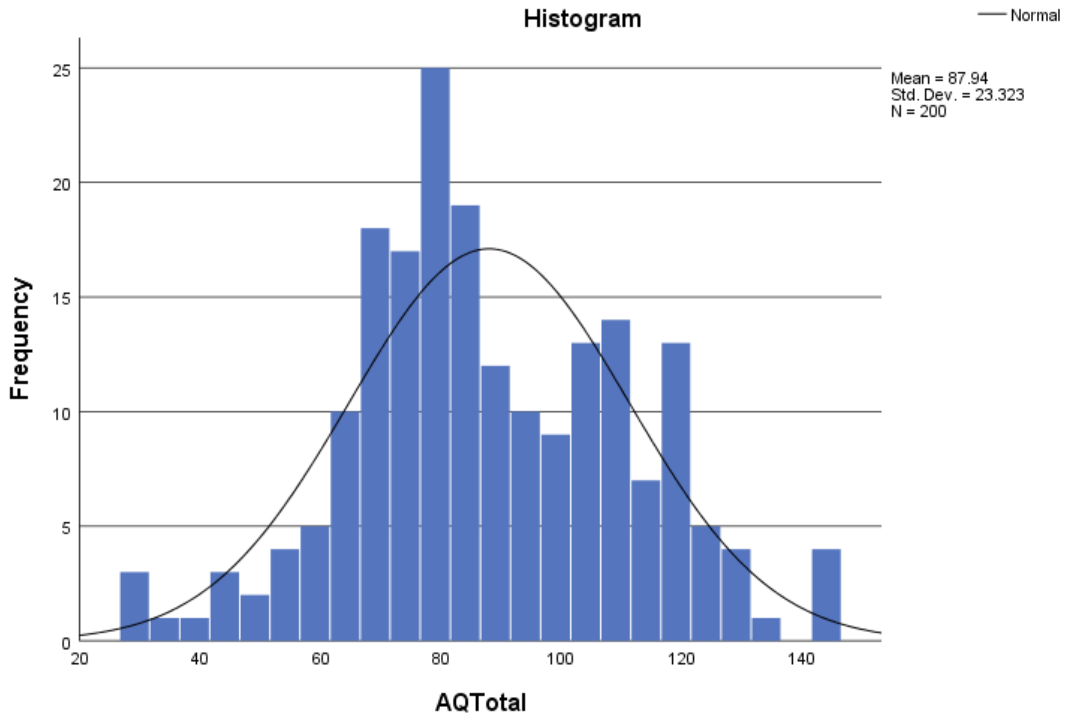


Figure 2

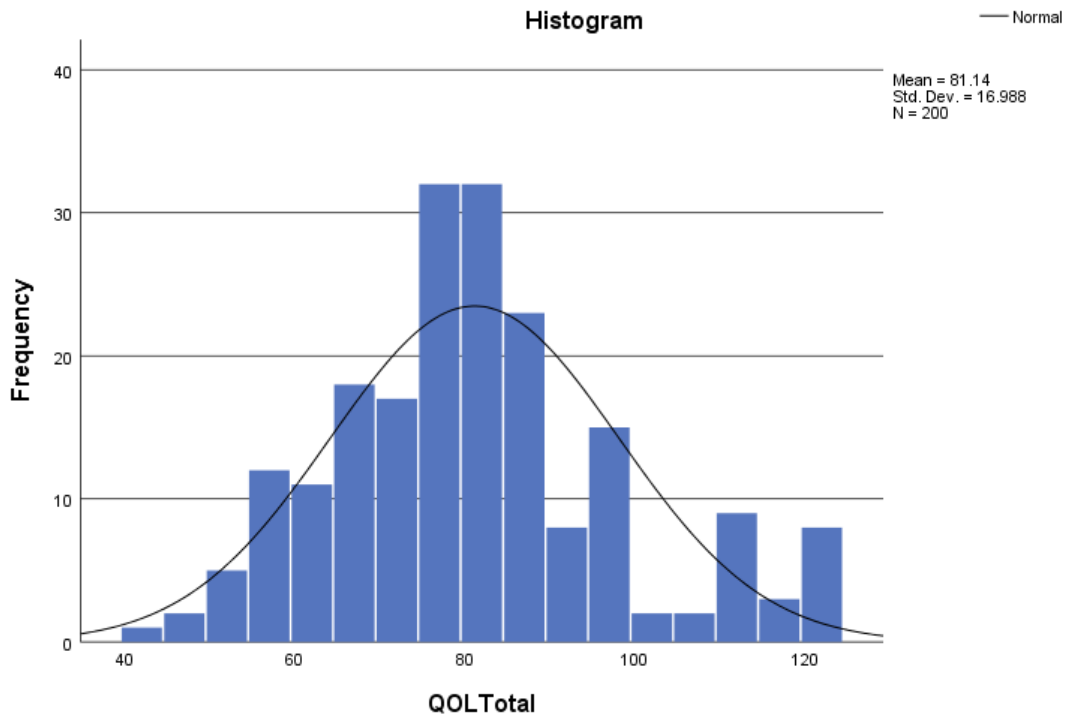


Figure 3

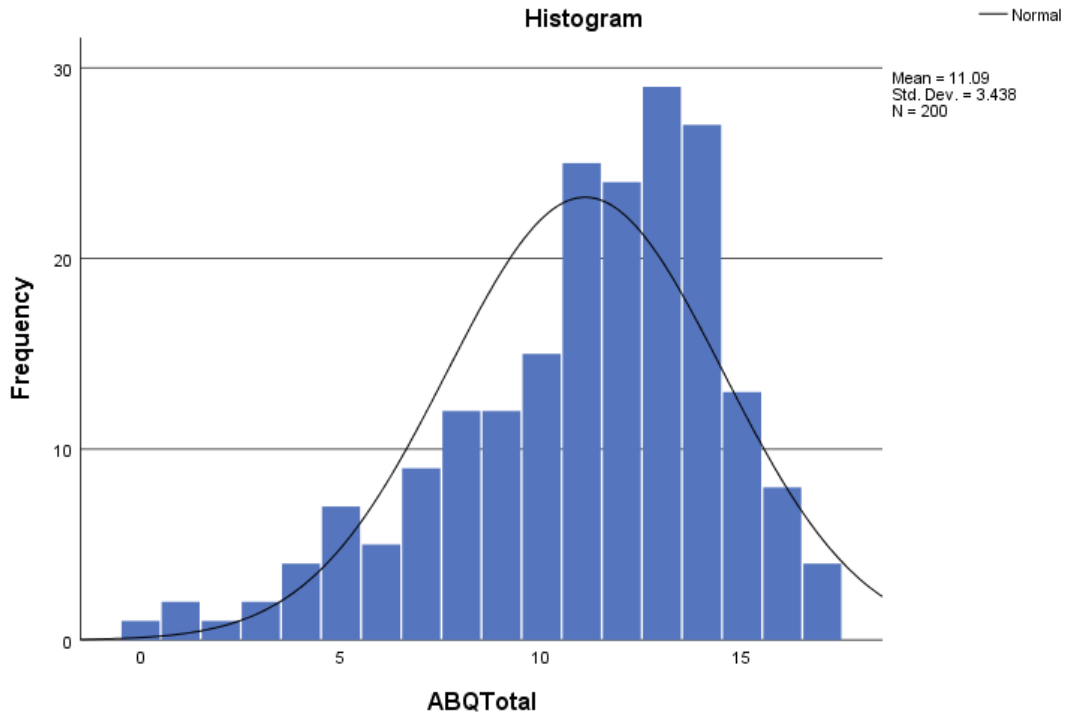


Figure 4

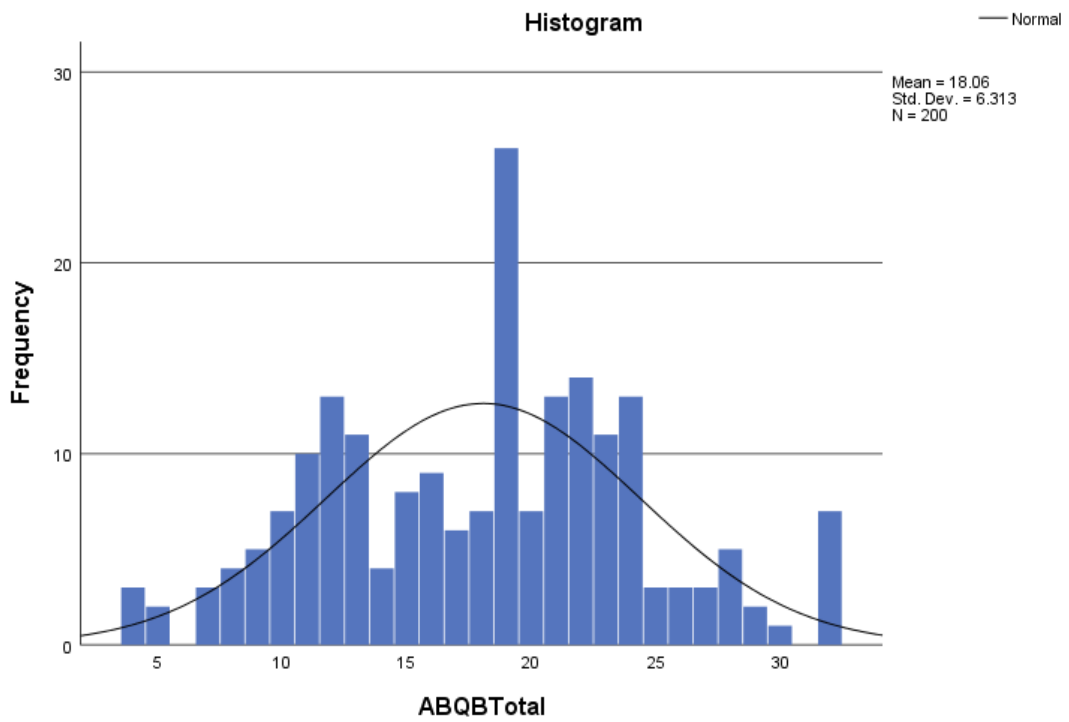


Table 2 shows the item numbers, Alpha reliabilities, Mean, Standard Deviation, Skewness and Kurtosis and actual and potential range of all the scales used in the present study. All three scales are reliable according to Nunnally and Bernstein's (1994) criteria, that is 0.7 and above alpha value means highly reliable which indicates AQ, QOL and ABQ to be reliable. Lastly, Kolmogorov-Smirnov was calculated because the sample size was more than 50. Its value is non-significant ($<.05$) which also shows the data is non-normally distributed.

Table 3

Spearman correlation of Addictive behavior, Quality of life, Buss and Perry aggression questionnaire (N= 200).

Measure	N	M	SD	1	2	3	4
1 AQ	200	87.9	23.3	-	-.113	.003	.139*
2 QOL	200	81.1	16.9		-	-.356**	-.185**
3 ABQA	200	11.0	3.4			-	.286**
4 ABQB	200	18.06	6.31				-

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows correlation between the measure which have been used in the study. The table shows significant relationships between aggressive tendencies and addictive behavior where two steric are present whereas there is negative correlation between Quality of life and addictive behavior which shows that when you have addictive behaviors present your quality of life will be low. Another correlation which is reported above is addictive behavior sub-scale A which measure illicit substances and it has a positively strong correlation with the Addictive behavior sub-scale B which measures addictive behavior. This means the more you consume illicit substances the more chances there are that you will develop addictive behavior towards other drugs.

Table 4

Mann Whitney U test showing mean differences in Addictive behavior, Quality of life, Buss and Perry aggression questionnaire between male and female. (N=200).

Variables	Gender		U	Z	P
	Male	Female			
AQ	87.26	90.66	3445.50	-.426	.67
QOL	93.56	79.65	3017.50	-1.74	.08
ABQ	83.88	96.58	3067.00	-1.59	.11
ABQB	80.97	101.6	2740.50	-2.60	.00

Note: AQ = Buss and Perry aggression questionnaire, QOL= Quality of life, ABQ= Addictive behavior questionnaire, U= mean difference, p= significance value.

Table 4 indicates a non-significant difference in the mean ranks of males (M=87.26) and females (M=90.66) on addictive behavior ($p = 0.67$). The results also showed a non-significant difference in the mean ranks of males (M=93.56) and females (M=79.65) on quality of life ($p = .67$). Similarly, there is difference in mean rank of ABQ ($p=.11$) and ABQB ($p = .00$) respectively. The p-value associated with the Mann-Whitney U test is 0.670. Since the p-value is greater than the significance level of 0.05, it suggests that there is no significant difference between the male and female groups in terms of Buss and Perry aggression questionnaire. Whereas The p-value associated with the Mann-Whitney U test is 0.081. The p-value is slightly higher than the significance level of 0.05, indicating that there is no strong evidence to conclude a significant difference between the male and female groups in terms of quality of life scale. Furthermore, in Addictive behavior scale the p-value associated with the Mann-Whitney U test is 0.110. Since the p-value is greater than 0.05, it suggests that there is no significant difference between the male and female groups in terms of Addictive behavior (Section 1A) and in section 1B the p-value associated with the Mann-Whitney

U test is 0.009. The p-value is less than the significance level of 0.05, indicating a significant difference between the male and female groups in terms of addictive behaviors.

Chapter4. Discussion

This study was conducted in order to explore the relationship between the addictive behaviors and aggressive tendencies on quality of life of a specific population which were Velo users. 3 measures were used to assess the addictive behaviors, aggressive tendencies and quality of life. The main purpose of conducting this study was that so that it can be found out whether is there any difference present specifically in gender which were males and females. Furthermore, to check the relationship between aggressive tendencies, addictive behavior and quality of life.

H1: “There will be a significant relationship between addictive behavior and quality of life among Velo users.”

The results from table 3 support Hypothesis 1. The findings reveal that there is significantly negative correlation between addictive behavior and quality of life. These findings prove that people who have addictive behaviors tend to have low quality of life. The findings line up with the previous literature. These findings suggest that people who have the tendency to develop addictive behavior towards illicit drugs which includes Velo as well will have a negative impact on their quality of life and they will suffer in terms of Psychological wellbeing, Physical and social wellbeing as well. These results line up with previous studies that suggest that people who are drug abusers have a negative quality of life and they tend to develop more addictive behaviors towards other drugs as well (Fooladi *et al.*, 2015).

Objective 1 mainly focused on the relationship between addictive behavior and quality of life among Velo users. The findings from Table 3 shows that addictive behavior and quality of life have a significantly negative correlation between them.

H2: There will be significant relationship between addictive behaviors and aggressive tendencies.

The above hypothesis is supported by table 3 in which it is stated that Aggressive tendencies is positively correlated with addictive behaviors which means that if 1 increases the other will also increase. This finding proves the hypothesis that if addictive behavior is more aggressive tendencies will also increase. These findings align with the previous literature which suggests that if aggressive tendencies are high there will be more addictive behaviors reported in individuals (Agbaria, 2021). Objective 2 mainly focused on relationship between aggressive tendencies and quality of life of Velo users. The findings in table 3 shows that there is a weak significant relationship between quality of life and aggressive tendencies of Velo users. This finding suggests that people who develop aggressive tendencies because of the use of illicit substances have a very less chances that their quality of life will be negative of less than a normal person.

H3: There will be significant difference among males and females' addictive behaviors, aggressive tendencies and quality of life.

Table 4 showed that there is a significant difference between males and females' addictive behaviors only and no significant difference was reported among aggressive tendencies and quality of life. The p-value associated with the Mann-Whitney U test is 0.009. The p-value is less than the significance level of 0.05, indicating a significant difference between the male and female groups in terms of subscale of ABQ (Section B). The Mann-Whitney U statistic is 3445.500. This statistic assesses the difference in ranks between the male and female groups for the Buss and Perry aggression questionnaire. Z-Score are the corresponding and Z-score is -0.426. The p-value

associated with the Mann-Whitney U test is 0.670. Since the p-value is greater than the significance level of 0.05, it suggests that there is no significant difference between the male and female groups in terms of aggressive tendencies. In quality of life the p-value associated with the Mann-Whitney U test is 0.081. The p-value is slightly higher than the significance level of 0.05, indicating that there is no strong evidence to conclude a significant difference between the male and female groups in terms of QOL Total. Whereas the subscale of Addictive behavior section A shows the p-value associated with the Mann-Whitney U test is 0.110. Since the p-value is greater than 0.05, it suggests that there is no significant difference between the male and female groups in terms of ABQ Total. Objective 3 was focused on the difference between males and female's quality of life, addictive behavior and aggressive tendencies for which an analysis of Man Whitney was in order and the findings showed in Table 4. It shows a slight difference in only addictive behaviors and no other significant difference is reported and other than addictive behavior, aggressive tendencies and quality of life of males and females are same.

So, the results proof the fact that 1st and 2nd hypothesis are proved right and the 3rd hypothesis is slightly and close to proving itself but is not completely right. The results also show that there is a positive significant relationship between addictive behavior and aggressive tendencies, meaning if one increases the other will also increase proofs that they are highly correlated and if there are addictive behaviors present in a person, aggressive tendencies are must to be present in the individual. As the addictive behavior scale, we can say that addictive behavior is present and there must be a role of confounding variables like other drugs which includes tobacco, cocaine and other inhaled substances and poppers.

Other studies and previous literature suggest that people who are into drugs have mostly a low quality of life which decreases their psychological as well as physical wellbeing (Abdelsalam *et al.*, 2021).

The findings of this study have proved that people who are Velo users have addictive behavior and those addictive behaviors exist not only because of Velo but also because of confounding variables which include tobacco, caffeine, and other inhaled substance. Aggressive tendencies also are present in individuals with Velo users and also a negative correlation with quality of life is seen which means individuals have high addictive behaviors and aggressive tendencies and a low quality of life.

CONCLUSION

In conclusion, this study was conducted to see impact of addictive behavior and aggressive tendencies on quality of life of Velo users. The results showed a clear correlation between addictive behavior, aggressive tendencies and quality of life. Furthermore, there is no mean difference between males and females' aggressive tendencies and quality of life but a difference can be seen in addictive behaviors that is males tend to possess higher addictive behavior in them then in females and they have the tendency to commit themselves to more drugs other than Velo.

Furthermore, the results in the table also showed that individuals who are undergraduate and have their marital status as single tend to have more addictive behaviors and aggressive tendencies along with low quality of life. Furthermore, the relationships which have been established in this study are positively correlation of addictive behavior and quality of life and negative correlation of quality of life and addictive behavior which assess the use of illicit substances and further addictive behaviors.

LIMITATIONS

Limitations of this study are:

The data which have been collected is not generalizable to the whole population because the data collected was only from Rawalpindi and Islamabad. Furthermore, the self-reported measures can also turn out to be biased by the participants and have the factor of social desirability and since the participants know that even though the data will be kept confidential still the researcher can see it so there comes a great chance of biasness and social desirability. Moreover, this study was done on a cross-sectional design and it can be more effective if done on a longitudinal research so that further demographics can also be added in order to conduct the research from a different perspective and point of view. Gender was also a limitation in this study as females were 64 and males were 134 which are higher in numbers than in females.

RECOMMENDATIONS AND IMPLICATIONS

The implications of this study are:

Velo is currently a new emerging trend in Pakistan which is gaining a large amount of people day by day so there is a need for this topic to be explored more vastly on different variables such as addictive behavior and aggressive tendencies. So, this study will serve as a literature to other researches related to Velo specially this will help in gender related drug researches as well that how women are also being subjected or are moving towards addictive behavior the most emerging trend in Pakistan of Velo or other confounding variables. Furthermore, recommendations of this study are:

The sample size can be increased or be equal of males and females. Moreover, the research can be done by adding more demographic variables and it can be done on a longitudinal scale so that more diverse factors can be explored in terms of Velo users.

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Appendices

Scale 01: Buss- Perry Aggression Scale.

Using this 5-point scale, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

1: Extremely uncharacteristic

2: Somewhat uncharacteristic

3: Neither uncharacteristic nor characteristic

4: Somewhat characteristic

5: Extremely characteristic

Please rate each of the following items in terms of how characteristic they are of you.

Use the following scale for answering these items.

	1	2	3	4	5
Once in a while I can't control the urge to strike another person.					
Given enough provocation, I may hit another person.					
If somebody hits me, I hit back.					
I get into fights a little more than the average person.					
If I have to resort to violence to protect my rights, I will.					
There are people who pushed me so far that we came to blows.					
I can think of no-good reason for ever hitting a person.					
I have threatened people I know.					
I have become so mad that I have broken things.					
I tell my friends openly when I disagree with them.					
I often find myself disagreeing with people.					
When people annoy me, I may tell them what I think of them.					
I can't help getting into arguments when people disagree with me.					
My friends say that I'm somewhat argumentative.					
I flare up quickly but get over it quickly.					

When frustrated, I let my irritation show.					
I sometimes feel like a powder keg ready to explode.					
I am an even-tempered person.					
Some of my friends think I'm a hothead.					
Sometimes I fly off the handle for no good reason.					
I have trouble controlling my temper.					
I am sometimes eaten up with jealousy.					
At times I feel I have gotten a raw deal out of life.					
Other people always seem to get the breaks.					
I wonder why sometimes I feel so bitter about things.					
I know that "friends" talk about me behind my back.					
I am suspicious of overly friendly strangers.					
I sometimes feel that people are laughing at me behind me back.					
When people are especially nice, I wonder what they want.					

Scale 02: WHO- Quality of Life Brief Scale

Instructions: This questionnaire asks how you feel about your quality of life, health, or other areas of your life. Please answer all of the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please keep in mind standards, hopes, pleasures, and concerns. We ask that you think about your life in the last two weeks.

1. How would you rate your quality of life?

Very poor	Poor	Neither poor nor good	Good	Very Good
1.	2.	3.	4.	5.

2. How satisfied are you with your health?

Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
1.	2.	3.	4.	5.

The following questions ask about how much you have experienced certain things in the last two weeks.

	Not at all	A little	A moderate amount	Very much	An extreme amount
	1	2	3	4	5
3. To what extent do you feel that physical pain prevents you from doing what you need to do					
4. How much do you need any medical treatment to function in your life?					
5. How much do you enjoy life?					
6. To what extent do you feel your life to be meaningful?					
7. How well are you able to concentrate?					

	Not at all	Slightly	A moderate amount	Very much	Extremely

	1.	2.	3.	4.	5.
8. How safe do you feel in your daily life?					
9. How healthy is your physical environment?					

The following questions ask about how completely you experience or were able to do certain things in the last two weeks.

	Not at all	A little	Moderately	Mostly	Completely
	1	2	3	4	5
10. Do you have enough energy for everyday life					
11. Are you able to accept your bodily appearance?					
12. Have you enough money to meet your needs?					
13. How available to you is the					

information that you need in your day-to-day life?					
14. To what extent do you have the opportunity for leisure activities?					

	Very poor	Poor	Neither poor nor well	Well	Very well
	1	2	3	4	5
15. How well are you able to get around?					

The following questions ask you to say how good or satisfied you have felt about various aspects of your life over the last two weeks.

	Very dissatisfie d	Dissatisfie d	Neither satisfied nor dissatisfie d	Satisfie d	Very satisfie d
	1	2	3	4	5
16. How satisfied are					

you with your sleep?					
17. How satisfied are you with your ability to perform your daily living activities?					
18. How satisfied are you with your capacity for work?					
19. How satisfied are you with yourself?					
20. How satisfied are you with your personal					

relationship s?					
21. How satisfied are you with your sex life?					
22. How satisfied are you with the support you get from your friends?					
23. How satisfied are you with the conditions of your living place?					
24. . How satisfied are you with your access					

to health services?					
25. How satisfied are you with your mode of transportation?					

The following question refers to how often you have felt or experienced certain things in the last two weeks.

	Never	Seldom	Quite Often	Very Often	Always
	1	2	3	4	5
26. How often do you have negative feelings, such as blue mood, despair, anxiety, depression?					

Scale 03: Addictive Behavior Questionnaire

This part of the questionnaire is to assess your actions regarding certain types of behaviours that people may exhibit. Please read every question and answer by circling the number that best describes how often you find yourself enacting the behaviours listed, as per this range of choices:

0 = Never, 1= Rarely, 2= Sometimes, 3= Often, 4= Always

Circle **0** if it **never** happens

Circle **1** if it happens **rarely**

Circle **2** if it happens **sometimes**

Circle **3** if it happens **often**

Circle **4** if it happens **always**

There are no right or wrong answers; it is important you answer honestly how frequently you exhibit these behaviours. **If you were to answer ‘rarely’, ‘sometimes’ or ‘often’ to one or more questions, please specify (with a number) how many times this occurs either A) per week, B) per month, C) per year.**

How often do you:

		A) number of times per week	B) number of times per month	C) number of times per year
Use alcohol?	0 1 2 3 4			
Use tobacco?	0 1 2 3 4			

Use caffeine?	0	1	2	3	4			
Use heroin (or other opioids)	0	1	2	3	4			
Use LSD or other hallucinogenics (such as mushrooms)	0	1	2	3	4			
Use ketamine, angel dust (PCP) or amphetamines	0	1	2	3	4			
Use cocaine	0	1	2	3	4			
Use ecstasy or MDMA	0	1	2	3	4			
Use cannabis (hashish or marijuana)	0	1	2	3	4			
Use poppers or other inhaled substances	0	1	2	3	4			
Use antipsychotics or barbiturates (including prescribed medication i.e. antianxiety/antidepressant)	0	1	2	3	4			
Spend time online: social media, porn sites, videogames,	0	1	2	3	4			

online role play games.					
Gamble (including online sites)	0	1	2	3	4

The following questionnaire relates to certain situations that people may experience. The questionnaire is comprised of 4 parts split into 2 sections (A and B). Please carefully read each questions and answer as instructed.

Part 1. Substances

First of all, please answer the following question:

In the last 12 months, have you made recurrent use of illicit substances i.e. barbiturates? (including prescribed medication i.e. antianxiety/antidepressant)

YES NO

If **YES**, please complete sections A and B, otherwise go straight to **Part 2. Alcohol (page 6)**.

Section A

The following questions are regarding the substances (or the behavior(s)) that you claimed to use 'rarely', 'sometimes', 'often' or 'always' in the previous detection questionnaire. When answering, please think back to the past 12 months.

1. Has the use of the illicit substance/s ever created problems in the workplace or in school?	Yes	No
--	-----	----

2. Have you ever tried to control or stop the use of these substances without success? If YES, please go to Q 3, if NO please go to Q 4.	Yes	No
3. Have you ever been able to quit using certain substance/s?	Yes	No
4. Have you ever neglected your family because of the use of these substances?	Yes	No
5. Have you ever lost friends due to your use of substances?	Yes	No
6. Have you ever had physical or psychological problems due to excessive substance misuse?	Yes	No
7. Have you ever used these substances in dangerous situations?	Yes	No
8. Has the misuse of these substances ever caused you to get into trouble with the law?	Yes	No
9. Has anyone dear to you (family or friend) ever complained about your substance misuse?	Yes	No
10. Have you ever suffered when abstaining?	Yes	No
11. Do you tend to misuse substances as a way of dealing with difficult situations?	Yes	No
12. Have you ever received treatment specifically for substance misuse?	Yes	No
13. Have you ever missed school or work in order to obtain a substance?	Yes	No
14. Have you ever done anything illegal (i.e. stealing) in order to be able to obtain a substance?	Yes	No

15. Have you ever needed to increase the substance dose significantly in order to reach the desired effect?	Yes	No
16. Do you take, or have you taken, a substance at a higher dose, or for a prolonged period of time, against your will?	Yes	No
17. Have you ever continued to use substances consistently despite being aware of the negative impact it could have on your physical and mental health?	Yes	No

For Experimenter Use Only **Total YES answers**

Section B

Answer by placing a cross over the number that best reflects your experience.

0 = Never, 1= Rarely, 2= Sometimes, 3= Often, 4= Always

	Never	Rarely	Some times	Often	Always
1. I fantasise about when I will next be able to take the substance(s)	0	1	2	3	4
2. I get lost in thought thinking about how to get money to be able to use a substance again	0	1	2	3	4
3. Thoughts and images regarding the substance(s) cause me great distress and anxiety	0	1	2	3	4

4. Thoughts and images regarding the substance(s) can spring up unexpectedly	0	1	2	3	4
5. I feel restless, irritable or agitated when I can't take the substance(s)	0	1	2	3	4
6. I feel an impulse to take the substance(s)	0	1	2	3	4
7. I have tried to stop taking the substance(s) but without success	0	1	2	3	4
8. I keep using the substance(s) despite the possible negative consequences	0	1	2	3	4

Total per column _____

Total for section 1B

Consent Form

I recognize that this questionnaire is given to me for research purposes which is being conducted in Capital University of Science and Technology.

I hereby willingly give my consent to participate in this study. I know that the confidentiality will be maintained and my information or name will not be used outside this research. I also identify that the results will be kept confidential and they will only be shared with the supervisor only for research purposes. So, I give my full consent to participate in this study and help the researcher to gather data.

Name:

Signature:

Demographic Sheet**Name:** _____**Gender:** _____**Marital Status:** Single Married: Divorced **Employed/ Unemployed:** _____**Education:** _____**Birth Order:** _____

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