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## EXPLORING THE CHANGING HEALTH BEHAVIOURS OF INTERNATIONAL STUDENTS AND IMPACT ON SELF-ESTEEM

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### **Abstract**

*Objective:* Many young adults display poor preventive health behavior (e.g. diet, exercise). This increases their continuing hazard to both physical and mental health. Young adults who study abroad, find it even more challenging to follow positive health behaviours. Basic health behaviours like exercise, diet, sleep, etc. are compromised by them in the need for adjustment. The degree of change in these health behaviors were assessed. The factors leading to these changes was identified along with the changing in self-esteem levels upon moving to Newcastle upon Tyne. The aim of the study was to explore the changing health behaviours of international undergraduate and postgraduate students and impact on self-esteem.

*Method:* A total of 14 international students studying at Northumbria University, took part in semi-structured interviews.

*Results:* Four themes emerged from the findings: ‘Environmental changes’; ‘Changes in independence level’; ‘Changes in lifestyle’; and ‘Social validation’.

*Conclusion:* Changes in health behaviours were similar for all the participants. However, each participant adjusted to these changes in his/her individual way. Major changes were seen in the dietary pattern and exercise pattern. The dietary pattern for most of the participants was altered. The amount of physical workout had mostly increased. The sleep pattern was disturbed during the initial months but with time, it smoothed. Many participants adopted new health behaviours according to their environment and belief systems. Some participants showed the adoption of negative health behaviours; however, they were aware of their changing health behaviours and had individual responses to these changes. Few participants successfully maintained their health status to positive. The overall self-esteem level increased for all the participants. Innate and adaptive factors were responsible for these changes.

The paper is an MSc thesis submitted to Northumbria University.

## **Introduction**

*“Behavior is strong or weak because of many variables, which it is the task of a science of behavior to identify and classify”- Skinner (1953, p.76)*

In a study by Ted, E. Dielman et al, (1984), it was exhibited that, despite the concerns expressed regarding personal health, many young people ignorantly continue to practice maladaptive health behavior. With this report, it was highlighted that behaviours that motivate youth to adopt a healthy lifestyle need to be recognized. The boundaries of health behaviors have not been rigidly classified. Moreover, the term health behavior does not hold a concrete definition as such. Gochman (1982) however, established health behavior as

*“those personal attributes such as beliefs, expectations, motives, values, perceptions, and other cognitive elements; personality characteristics, including affective and emotional states and traits; and overt behavior patterns, actions and habits that relate to health maintenance, to health restoration and to health improvement.”*

For many years, health behavior has been one of the topics of intense study for health psychologists. Health behavior has caught the attention of many health psychologists and is receiving a close review. Scholars have tried to identify the elements that would play a crucial role in predicting health behavior, changing negative health behaviors, maintaining desirable health behaviors. Theories and models have been formulated in order to oblige the field of health psychology.

One such theory is the Theory of Planned Behavior (TPB) by Ajzen (1991). According to this theory, the behavior is predicted by one's intentions. These intentions are governed by components like attitudes, subjective norms, and perceived behavioral control (PBC). Earlier, known as the Theory of Reasoned Action, this theory was modified by the addition of PBC. This was due to the fact that self-efficacy was introduced by Bandura in 1977 and it was regarded as an integral fragment in the course of determining behavior. Another model that was the Attitude-Social Influence-Self-efficacy model (ASE) (De Vries et al, 1988) which integrates the idea of TPB. In 1994, Flay and Petraitis came up with the Theory of Triadic Influence (TTI) (Mann, et al., 2004).

These theories provide crucial foundations to help predict health behaviors. One common consideration that all these theories have in common is the concept of 'self'. Within each theory, behavioral determinants are assumed to be moderated by many factors including self-esteem and self-efficacy. The Theory of Triadic Influence (TTI) reuses self-esteem in the same sense

as the ASE model. The Precede–Proceed model (Dabbagh, Green and Walker, 1991) which aims to plan health education and health promotion has also recognized self-esteem as an important character (Mann, et al, 2004).

The ideas and estimations that people hold about themselves identify their identity, ambitions and aptitudes are known as one’s self-concept. Self-concept is a powerful force, which inspires internal administration, navigation and fostering individuals throughout their lives, and governing their behavioral practices character. Under this concept of self, there is a collection of believes that one holds about oneself. Some of these believes include the idea of self-esteem, self-efficacy, self-image, etc. People’s feelings about themselves are known as self-esteem (Mann, et al, 2004). Self-efficacy is a personal verdict about how well one can accomplish courses of action needed to deal with potential situations (Stajkovic, and Luthans, 1998).

Self-efficacy and self-esteem are often intertwined. This is for the reason that people frequently try to develop self-efficacy in activities that provide them with increased self-esteem. This makes self-efficacy and self-esteem un-identical but nevertheless related.

In context to behavioral domain, the development of self-efficacy can contribute to the development of positive self-esteem (Mann, 2004). In other words, the progress of self-esteem is directly proportional to the advancement of self-efficacy. Erik Erikson (1968) projected a psychoanalytic theory of psychosocial development encompassing eight stages from infancy to maturity. Erikson was concerned with the way an individual socializes and the way this socialization touches upon their sense of self. As the person ages, s/he passes through different stages. Each stage features some basic qualities that a person takes in hand while moving on to the other stage. All the stages are interconnected. Failure to accomplish the motive of any of the stages might lead to difficulties in going through the next stage. In the 6<sup>th</sup> stage, he looks at young adults which comes after the 5<sup>th</sup> stage which targets adolescents. The 5<sup>th</sup> stage is known as “ego-identity vs role confusion”. The 6<sup>th</sup> stage is termed “intimacy vs isolation”. Success in this stage will lead to the 7<sup>th</sup> stage linked with early adulthood, which is the virtue of love. If one is unsuccessful in completing this period, it may lead to loneliness and depression in that person’s life.

For many years, studies have inspected the consequences and correlates of self-esteem. It is claimed that understanding of the development of self-esteem, its outcomes and its active protection are crucial for the improvement of both mental and physical health. Literature depicts a systematic relationship between self-esteem and internalizing problem behavior. Many studies have shown the relation between self-esteem and health behavior patterns as well. Some

of these researches demonstrate that there is a positive relationship amongst self-esteem and health behavior. On the contrary, few studies totally scratch the fact and states that there are no relations, howsoever between self-esteem and health behavior.

In 1999, Seigley, highlighted many studies that prove that the correlation between self-esteem and health behavior exists to a certain extent. One such study in this paper was where Duffy explored health locus of control, self-esteem, health concerns and health status on health behavior. The results indicated that 25% of the variance in health behavior was explained by the amalgamation of variables. Out of this 25%, self-esteem holds nearly 6% of the total variance on its own. Another study by Meuhlenkamp and Sayles concluded that health practices are indirectly influenced by self-esteem with social support as a mediator. Later this study was replicated, and similar results were found (Seigley, 1999). However, in the same paper, Seigley talks about a report by Kalbok where no relationship was found between self-esteem and specific health behavior exercises.

A recent study by Trzesniewski et al, (2006) found that adolescents with low self-esteem grew up to have comparatively more mental health problems during adulthood than adolescents with high self-esteem. It is a widely held view that mental health problems may lead to negative health behaviors. Thus, an adolescent going with mental health issues into adulthood is prone to adapt to mal health behaviors. Prior to the work of Seigley (1999), Mann, (2004) studied self-esteem as an approach for mental health promotion. In this research, it is pointed out that self-esteem acts as a protective factor that underwrites better health along with constructive social behavior that acts as a safeguard against negative influences. As far as negative self-esteem is concerned, its presence can play a dominant role in the development of a range of problems like bulimia, anorexia nervosa, anxiety, substance abuse, and high-risk behaviors.

A study by Smith, Gerrard and Gibbons, (1997) primarily focused upon college women as its target group. This study tested the premise that people with high self-esteem are more likely than those with low self-esteem to infer information about their personal vulnerability to health risks in a self-serving style. Their findings proposed that individuals with high self-esteem react to information that threatens their perception that their own preventive behaviors are efficacious in a more egotistical fashion than do people with low self-esteem. This study also mentions that individuals with high self-esteem have more clearly defined and more stable self-schemas than do individuals with low self-esteem.

Here we can see how the level of self-esteem impacts one's understanding to comprehend his/her proneness to risky behaviors. Once the person understands certain types of risks in a

particular behavior it can be said that that person would not push oneself into that perilous and negative behavior. In a study to understand the relationship between attributes of personality and health behaviors practices during adolescence conducted by Torres and Fernández (1995), it was determined that self-esteem explains 39% of the mental health behavior, 5% of social health, 13% of security behaviors and 9% of personal health behaviors. Researches have shown that higher self-esteem negatively correlates with viewing pornography ( $r=-0.27$ ). Also, the relationship between self-esteem and physical inactivity was statistically found to be 0.24 and -0.22 when associated with illegal drug use (Kim, 2011). Huntsinger and Luecken in 2004, accentuated that high self-esteem has been found to predict positive health practices in general. Moreover, high self-esteem is also associated with exercise and healthy food consumption. However, low self-esteem, on the other hand, has shown its link with frequent alcohol abuse and unhealthy food consumption.

Young adulthood is considered to be a period of life where physical activity steeply declines (Dumith, Gigante, Domingues and Kohl, 2011). Researches have shown that there is a substantial change in the performance of health behaviors during the first three years of college (Hudd et al, 2000). The extent of change majorly depends upon the peer group (Lau, Quadrel and Hartman, 1990). This can be due to the reason that along with emerging adulthood, comes new social groups and support systems along with which comes the shift in interpersonal influences (Nelson et al, 2008). Talking about dietary behaviors in particular, it has been found out that fast food consumption is highest amongst young adults. 52% of young adults of the age group 20-39 years, according to the Continuing Survey of Food Intakes by Individuals (1994–1996, 1998), reported eating fast food on one or both days of the survey (Nelson, et al, 2008). It is a widely known fact that fast food consumption leads to problems like weight gain which can lead to complications in the long run of life. However, people among the mentioned age group seem to be ignoring this fact and following such negative health behavior. Data by the same survey also demonstrated that the consumption of soft-drinks is highest among 19-39-years old when brought into comparison with other age groups. Not only this, but the NHANES data illustrate that a majority of young adults (aged 20–29 years) consume <1 serving/ day of fruit. A gender variation was seen here as 63% of the total males showed this behavior in contrast with 59% females who demonstrated this attitude (Nelson, et. al, 2008). It can be seen that the affiliation of self-esteem to health behavior has been expansively studied. With researches claiming both affirmative and dissented relations between self-esteem and health behavior, this study aims to pick its side on the topic and contribute to the current studies.

It was observed that a bulk amount of studies has been conducted with adolescents and very few with young adults as a target group. With this in mind, this research makes young adults (undergraduate and post postgraduate students) its target group and tries to bring in a new edge to the recent studies. Another reason to select the mentioned target group is the fact that during this stage, students are more likely to be stressed. Being under stress, students are more likely to practice lesser healthy behavior than what they should exhibit. For example, eating junk food because it is easily available and does not require much effort in the eating process. This stress can be because of the urgent need to balance competing demands of academics, developing new social contacts and on the top of all that, at this stage, they are responsible for their own daily needs (for instance, nutrition, clean clothing, etc.) (Hudd et al, 2000). As it can be noted in a research by D. Von Ah et al, (2004), that along with the changes due to the stressors stated above and their new-found responsibilities, they have greater freedom and control over their lifestyles than ever before. Moreover, there are hardly any studies focusing on international students in relation to their health behaviors and self-esteem which this current study focusses on doing so.

To be an international student is more challenging than being a local student. A research article on International Student's Challenge and Adjustment to College (Wu, Garza and Guzman, 2015) concluded with their qualitative interviews that academic challenges, social isolation, and cultural adjustment are some of the factors that international students have to deal with. Explicitly, academic challenges comprised interaction with professors, classmates, and staff. Consequently, they have to deal with social isolation when engaging in different group activities. Culturally, they need to confront the different ways of thinking (Wu, Garza and Guzman, 2015). This means that international students, along with the general stressors that a local undergraduate or postgraduate student undertakes, also have to go through additional stressors of social and cultural changes and adjustments. This gives these students an edge toward the local undergraduate in terms of stresses. As discussed above, stress may cause changes in health behaviors. These arguments make international students the prime focus of this project.

This study aims to start bridging the literature gaps with the help of the qualitative method. It targets to study the changes in the health behaviours of international undergraduate and postgraduate students and the impact of self-esteem, while also highlighting the factors responsible for them.



## **Method**

### ***Design***

This study is a qualitative study influenced by the personal experiences of the researcher. Being an international student herself, she was curious to learn about the health behaviours and self-esteem patterns of other international students. This study utilized traditional qualitative design, thematic analysis as a nature for this research. An inductive analysis was conducted following a realistic approach.

This study employs a series of interactions with the participant to discover the changing health behaviors of international students and the impact on self-esteem level. Health behaviours like physical activities, sleep schedule, smoking habits, alcohol consumption, sexual life, and dietary patterns were examined. The impact on self-esteem level was analyzed by evaluating the participant's points of view towards their self-esteem levels. The study explores the reasons participants believe are responsible for the changes in their health behaviors and self-esteem levels. This was achieved by conducting a semi-structured interview with the participants. The interview schedule provided an insight to the various changes in health behaviours and self-esteem of the participants.

### ***Participants***

The opportunity sample of participants (N= 14) was recruited from the Northumbria University, Newcastle upon Tyne. The sample comprised of both males and females between the ages of 18 and 25 participants. They needed to bring along a physical proof of being an international student (passport or BRP). 6 female participants and 8 male participants were interviewed. 7 undergraduate students and 7 postgraduate students were recruited for the study. There were 9 students from India, 2 students from the United States of America, and one student each from Germany, Bangladesh, and Vietnam.

Initially, the study focused solely on international undergraduate students. The study was conducted during the summer break time of the university. During this time, many undergraduate students had flown back to their respective countries. This made them unavailable to participate in this study. Therefore, international post graduate students from the university also had to be involved in order to achieve the desired number of participants for the study.

In adherence to ethical guidelines, participants were informed that they were free to withdraw from the study at any time they wished to, without any prejudice. It was also made sure that the data provided by them would be kept confidential. The ethics committee approved this study.

### ***Recruitment***

Posters were put up at Northumbria University for informing the potential about it. Notice boards, smoking areas, and other common spaces were targeted for the posters to be put up. Upon seeing the posters, interested participants emailed the researcher about their interest in taking part in the study. For their contribution to the study, eligible students (students pursuing Psychology degree at Northumbria University) were awarded points as part of their undergraduate programme. Contribution of other students was considered voluntary.

Nevertheless, the researcher reverted to all the interested participants with the participant information sheet which explained the aims and objectives of the study and the role of participants in that study via email. Once the participant was convinced by the study aims and found himself/herself to be suitable for the study, further contacted the researcher. A meeting was then arranged according to the mutual convenience for further procedures.

Ethical approval was granted from Northumbria University's online ethical approval system prior to commencing the study.

### ***Material and apparatus***

Interviews were digitally recorded. A semi-structured interview schedule was printed and used as a reference. The interview was developed to provide a broad guide for discussion.

### ***Procedure***

A set time to meet, complete the formalities and conduct the interview was decided mutually. During the meeting, the following procedure was followed. Firstly, proof of the participant being an international student was checked. Secondly, an ethics sheet of the study was handed over to the participant to read over. The participants were given a chance to clear any doubts or questions if they had regarding their role in the study or the study itself. Thirdly, they were given the debrief form. This form would guide them to Ask4help, Northumbria University, for

help if in case they felt any discomfort during their participation in the study. After making sure that the participants had clarity about the study, they were asked to sign the consent form. This is important to refrain from any future conflict with the participant. Each participant was given a special code (P1, P2... P14) in order to keep their identity disclosed. Lastly, the participants were indulged in a semi-structured interview with the researcher which interests the changing health behaviors of the students and figuring out the ground basis for this change along with effects on self-esteem.

All the interviews conducted were simultaneously recorded on the researcher's password protected personal phone. These were recorded for the researcher to go over the interviews during the period of transcription and coding. The interview investigated health behaviours like physical activities, sleep schedule, smoking habits, alcohol consumption, sexual life and dietary patterns. etc. Age, gender nationality and the level of degree were additionally recorded for subsequent analysis. Along with this, data on their feelings about these changing habits were recorded. Participant's perceptions about the positivity and negativity of these changes were also noted. In addition to this, participants were asked about the influence of their social circle on their health behaviours and self-esteem levels.

Towards the end, they were again provided with an opportunity to ask any questions about the study. They were informed in advance about the withdrawal procedure and were reminded about it once again. None of the participants qualified the eligibility criteria for receiving points as part of their university programme, therefore did not receive any and their participation was considered voluntary.

### ***Analysis strategy***

Thematic analysis was used as a qualitative method of scrutinizing the data. Thematic analysis is the most widely used qualitative analytic method (Braun and Clarke, 2006). It is flexible and provides an insight into rich and detailed, yet complex amounts of data. It is a method for recognizing, analyzing and reporting patterns (themes) within the data (Braun and Clarke, 2006).

The following procedure was followed after the review of the literature was completed and the data was collected. Initially, the data was familiarized. The data was transcribed and was read multiple times. Key-words and phrases were highlighted in NVivo itself. Different coloured highlights were chosen for each health behaviour for the ease of identification. Then, initial

codes were generated. Previously selected key words and phrases were coded into respective health behaviour codes for the entire data set. After this, themes were searched. The codes were organized into potential themes under the guidance of my supervisor. These themes were reviewed along with my supervisor and a generic map of the analysis was drawn on paper.

The themes were then named and defined. In this step, the themes were refined. Lastly, final data analysis was done along with a selection of compelling extract examples. The analysis was related with the research question and literature, producing a scholarly report of the analysis.

## **Result**

All the 14 participants have tried their best to adjust to their new lives. They all moved from different parts of the world to a city where they have never been. Initiating a life never lived before, without any parental support was difficult for both under-graduate and post-graduate students. In their attempts for adjustment, their health behaviours and self-esteem levels were altered in different ways. When reflecting on the participant's journey from day one of moving to Newcastle upon Tyne to the current day of their lives, four main emerged. These themes were further divided into sub-themes. They were:

- Environmental Changes
  - Cultural Differences
  - Climatic Changes
- Changes in Independence level
  - Financial Budgeting
  - Self-reliance
- Changes in lifestyle
  - New living arrangement
  - Balancing university life and personal life
- Changing social circle.

The first theme “Environmental changes”, highlights the changes in their surroundings. The second theme “Changes in independence level”, charts the changes in the level of autonomy that international students achieve. The third theme “Changes in lifestyle”, illustrates the basic

changes in living conditions. The last theme, “Changing social circle”, reflects upon the changes in the crowd around the international students.

### *Environmental changes*

Before coming to Newcastle, the participants were somewhat aware of the drastic environmental changes that lay ahead. They were equally ecstatic and worried to address these changes in their lives in an unknown city. These mixed emotions were expressed in the thoughts of one of the participants who said,

Before moving to Newcastle i was excited to embark this new begining of my life. i was scare d as to how the things will turn out but was also excited to see how it changes me. The major change is now I

(P1, India).

They all had a hint of the major changes that were ahead but, hadn't the slightest idea how major its impact would be on their health behaviours and self-esteem levels. While they started to discover the new environment around them, they realized, that the challenge to adjust in this environment was not easy. It is a known fact that adapting to any kind of change is a stressful task. Being international students, they had to deal with additional stressors of environment changes (Hsiao-ping Wu, 2015) along with the academic stresses. One of these additional stressors is the changing environment. Environmental changes underpin the following changes:

- cultural differences
- climate changes.

- *Cultural Differences:*

In comparison to other students in general, the demands for cultural modifications often places international students at greater risk for psychological problems. Along with the psychological distress due to separation from a familial environment and change in language, international students also undergo acculturation. Acculturation is the process of adapting to culture settings along with the attainment of values and behaviours well-matched with that culture (Sorrells, 2013). The UK's cultural values are similar to the USA (Yeh and Inose, 2003) and the countries of the European Union. Therefore, elucidating that, students from America and the countries of the European Union do not experience as big of a cultural difference as compared to the cultural difference experienced by the students from Asia.

It occurred a bit like retrospective shock. Back home it is not as tense as here. I have been drinking since I was young and it seems very normal, you don't have to do excessively. You know your limits and people here don't.

(P5, Germany)

The culture in the UK is comparatively open and judgmental free as compared with the South Asian region. In countries like India and Bangladesh, drinking habits are seen as defamatory and counterproductive but in the UK and the American culture, it is an important aspect of socialization. Moreover, it is not culturally acceptable for women to consume alcohol in India and Bangladesh whereas, in the UK no one gives a second look to it. To this, one of the participants says,

In india, women are frowned upon when they drink. they are considered to be "uncultured" if they are caught drinking. so i never drank before. but here it is not like that. men and women both drink and it is not frownd upon. now whenever i drink i do not feel judged so i can drink openly. and frankly, i like it.

(P13, India)

Not only this, but the legal drinking age in the UK is 18 years while in the Indian cities like Delhi and Pune the legal drinking age is 25.

A. Habits have changed as alcohol can be consumed more frequently because of the legal drinking age. Also now I go for partying more than before so more booze.

(P4, India)

Many participants consider Newcastle to be a city of nightlife. Therefore, they want to make the most out of it. In order to explore the popular 'nightlife' of the city, they tend to go clubbing and partying at night.

Newcastle is a clubbing city, whereas my home in Arkansas is not.

(P10, Arkansas)

Yes, I would say "binge" drinking is a lot more frequent than it used to be. Also we never really went out for a beer randomly or had a drink during the day back home, unlike the drinking culture here.

(P11, Spring Texas (Houston))

Most of these efforts are made in order to learn about the culture and people of the place where they will now have to live for at least a year. During this learning process, some of their health

behaviours got altered. Although, this cannot be said as true for everyone. On one hand, some participants who did not drink earlier have now started to drink. On the other hand, some students were firm with their cultural beliefs and showed no change in their drinking habits. Those who did not change their drinking habits, feel positive about staying the same, and have an increased level of faith in their personal beliefs.

A yes, since I have not so much changed my habits I feel encouraged that I am still my own person, and not so easily swayed from my beliefs.

(P10, Arkansas)

For those who switched to negative health behaviours, made them feel ashamed, unhappy and, guilty. This is because they know that they will have to restrict or totally cut down on their habit of drinking once they move back to their hometown.

Not proud, but also ashamed for the most part. If that makes sense. When I move back home the drinking will decrease A LOT.

(P11, Houston)

i am not very happy with this change. this is because i have to lie to my parents when they ask me if i have started to drink or not. sometimes, i feel guilty. but as long as i am in control, i think it is fine.

(P13, India)

In totality, most of the participants, with time, adjusted well with the cultural change. Some found this change as a “retrospective shock” (P5, Germany) while some agreeably adapted to the new changes.

- *Climatic changes:*

Participants in their initial days were already a prey to jet lag and early sunset timings messed up with their sleeping patterns. The temperature in the north-east ranges roughly from 3°C to 20°C. Most of the international students are originally from the Asian subcontinent and The United States of America. Unlike cultural change, climate change treated all the participants equally. For them, winters were a rough period. The sunset would be around 4 pm while the timing for the sunrise was 8 am.

A the sun is still up when I try to go to bed at 22:00 which makes it hard to get to sleep. So I end up staying on my phone until I am so exhausted that I fall asleep.

(P10, Arkansas)

Well aside from the obvious 6hr time difference, the timing of sleep is the same. Only difference could be staying up until midnight most nights, where in Texas I tried to be asleep at 11.

(P11, Houston)

As they have all spent at least 3 months in this city, they now are not very much bothered with the climate changes. They have now become habitual of it.

A Yes. Initially I could not sleep at all. So, I slept with a guy that I came with. It felt weird. But slowly, I tried sleeping on my own and somewhat did it. Now my sleep schedule is fine. Its similar to what I had back home.

(P4, India)

Climatic changes have not only hindered participant's sleeping patterns but have also played a role in causing fluctuations in their self-esteem levels. Lack of sunlight made the participants prone to seasonal affective disorder (SAD). Lack of light is a contributing factor for the development of winter depression, which is a characteristic of seasonal affective disorder. According to a report by Molin et al. (1996), a noteworthy connection was discovered between temperature and light exposure (minutes of sunshine, global radiation and length of daylight) and degree of depression for patients suffering from winter depression. The lesser the exposure to the sunlight, the more would be the chances for the development of winter depression.

One of the participants stated that during the winter months, her self-esteem level was lowered. This was due to the fact that the weather was low-spirited, and it was dark for the majority of the day. Lack of sunshine made her feel depressed. But, from February, as the winters started to fade away, her self-esteem level started to elevate, and she does not feel sad or depressed anymore.

During the winter months I would say self esteem was lower, but at the start and from February – now it is higher. most of the day was dark and felt depressing.

(P11, Houston)

As it was the first encounter of the participants with this weather, winter depression struck them harder than it would have to the local students.



### *Changes in independence level*

Changes in the independence level seemed to be one of the main causes of all the changes in both health behaviours and self-esteem. For all the participants, coming abroad for a fairly long time, without any adult supervision was a challenge. Interestingly, undergraduate students were looking forward to enjoying this new-found freedom, more than postgraduate students. For postgraduate students, the university and their careers were of prime focus.

**A: University and career. i am responsible for my own behaviour. i am here for my degree and start a nice career. i want its foundation to be strong. |**

(P12, India)

This variation in the outlook towards the new-found freedom may be due to the difference in maturity level. As quoted by participant P12, who is engaged in her post-graduation studies that she does not want to engage in any unnecessary activity which will act as a barrier to her in achieving her ambitions. While on the other hand, undergraduate students do not show the same level of maturity as postgraduates do. They act carefree and would like to indulge in whatever activity they feel they feel like.

**No restriction, i can do whatever i want to do. i have no one to answer to and no one to scold me. my parents won't know what i am doing here and no one is going to tell them, this means that i can smoke as much as i want to. also, there is lack of things to do.**

(P1, India)

This nonchalant attitude by under-graduates, could also lead them into trouble. With the novelty of freedom and lack of knowledge of the new environment, they need to be careful with their activities, especially during the initial days.

This change in independence level teaches them important life lessons along with life skills. Some important life skills that they learn are financial budgeting and self-reliance.

- *Financial budgeting*

The British currency, Pound (£) is one of the strongest currencies in the world. Hence, some students found the need to be economical. This economical approach made it difficult for them to be at financial ease. They have to keep a watch on their spending patterns and have to divide the amount of money that they have to spend on various commodities. This division is mainly

based on their priorities and their need for that hour. For some, the priority is food while for some it is travel.

I am generally very healthy and I think since I moved away from home I started cooking for myself so I tend to eat very healthy and because of limited money, I try not to eat out so much as it is cheaper to cook. So I cook enough in the starting of the week for 2-3 days, like big baggage cooking but healthy.

(P5, Germany)

The participants do realize that they have limited funds and they have to use it wisely. In terms of managing finances, mostly all under-graduate and post-graduate students seem to be doing a commendable job.

However, there was only one participant out of all who did have any financial struggle.

I think the major reason is that I am used to someone else doing my jobs like preparing breakfast, cleaning room and cleaning dishes that now I feel too lazy to do all this. Also, in the morning I am mostly late for my lectures, so I don't have any time to prepare breakfast for myself. Another reason is that mostly I am alone in my room and cooking just for myself, I mean all that efforts for myself and then cleaning everything seems like a lot of work and I don't feel like doing it. The easy way out is home-delivery. Although it is a bit expensive, but that is no issue for me.

(P1, India)

Changes in the number of funds available to them have led to some changes in their health behaviours. Students cook at home more often than going out for dining or ordering food from a food chain. They only do so on special occasions. They make sure that their meals are not monotonous and therefore also practice eating out once a month to be reasonable.

i try to cook at home to save money. i try to eat healthy like fruits, sandwiches and juices as it is cheaper and good for health. once a month or sometimes when i crave for junk food i let myself take a cheat diet. i try to drink good amount of liquids and stay healthy.

(P13, India)

- *Self-reliance*

Back at home, participants led an easy life in terms of household management. They were provided all kinds of help in most of the common activities of the day. Many of the students from the Indian subcontinent did not have to perform daily household chores like washing the dishes, laundry, or cleaning their rooms. This is due to the fact that they have had helpers to do all this for them most of the time.

how the things will turn out but was also excited to see how it changes me. The major change is now I am self-dependent. I have to do everything on my own. Back at home I had helpers and other family members to do stuff for me, but I have got no additional help here. As a result of which I eat whenever I feel like, and whatever I feel like, which is mainly junk food. Also, I have to do my laundry on my own

*(P1, India)*

Furthermore, due to gender stereotypes, in some Asian countries, male members of the family are not expected to learn household chores. As a result of which, in time of its need, they feel unequipped to perform such tasks.

A people around me. they all try to order. cooking seems like lot of work. also, being a guy i was not taught the household work and therefore i am not well equipted with cooking. so i prefer to order food.

*(P9, India)*

As these students are not in a habit to perform their errands on their own, they tend to skip it or find an easy way out. For instance, one participant prefers to order food from fast-food chains rather than to cook at home to avoid cleaning dishes after eating.

Back at home I used to eat home-made food mostly (dal, chapati, vegetables etc.). but here due to laziness of doing all the washing and cleaning on my own, I prefer ordering from restaurants. I try to eat

*(P1 India)*

Fascinatingly, some of them do not feel any regrets regarding this situation. They believe that the current lifestyle is not their permanent lifestyle and after some time, they will have to return to their previous living style.

However, they cannot always escape from these chores. Thus, somehow, in small steps, they learn to perform them. Once they felt confident in doing these chores on their own, they do not feel the need for any external help. Slowly, they become self-reliant.

As a result of being self-reliant, they try to be self-supporting. They take up part-time jobs in order to be productive in their spare time and enhance their CVs. These part-time jobs not only help them earn some extra money but also gives them a mental feeling of self-standing. This helps them upgrade their self-esteem level as working with the locals brings them closer to the community.

equipted with the knowledge of my surroundings. my part time job also seems to play a part in increasing my self-esteem level. i feel confident and feel like i am a part of this community. i feels good.

*(P3, Vietnam)*

- *Accountability*

With independence comes accountability. Now, their answerability is to themselves as they are no longer living with their family. There will be no one to question them for their choices, may it be the number of cigarettes they smoke in a day, what they eat or when they eat. With a lack of authority, international students need to be smart enough to figure out the best way to sustain their life.

A I am independent and therefore have to take care of my health by my own. My health is in my own hands. I make sure I don't fall sick. I eat well, and take care of myself. I am self-dependent.

(P4, India)

At home my parents didn't like me smoking so I used to sneak out of the house and smoke with my friend some place else. Here, there is no restriction and I can smoke anytime. The frequency has certainly increased.

(P1, India)

Without much external help, they try to stay healthy and make sensible choices. They experiment with cooking and join the activities that they have always wanted to do. All this experimenting helped them develop internally increasing their level of self-esteem.

the self esteem level is definitely more as now i am more aware about the world. i am bad at socialising and here being new socialising was a necessity so i developed that skill as along with other inter and intra personal skills.

(P14, India)

it is more. when i came i was just a kid who was in the growing phase, i am still in the growing phase but now i think i am ahead in that phase and know more about myself. i have grown from within.

(P13, India)

Moreover, not only for their health, but they are now also responsible for their daily schedule. They need to divide their time according to the number of tasks they have to perform each day. Sometimes, they are successful in completing all the tasks but are not so successful in doing it on time.

Nevertheless, it does not seem to bother them as all they are really concerned with the completion of the task in a desired amount of time.

Changes in the level of responsibility teach international students a lot of things. It teaches them how to be self-reliant and how to be accountable for their own actions. They learn and develop innovative skills in order to live their lives to the fullest. This polishes them for their life ahead

and prepares them to think wisely. All in all, if handled in the right way, independence can have a booming positive effect on one's life.

### *Changes in lifestyle*

The changes in environment and the changes in the independence level of international students have led to a change in their lifestyle. Changes in lifestyle include changes in the living arrangements and achieving equilibrium between university life and personal life.

- *New living arrangements*

All the participants, as mentioned before came from a familial background. Their living arrangements, to prior coming to Newcastle upon Tyne included familiar faces, known places, and homes customized to their personal needs. Upon shifting to student's accommodation, they received a standard room supplied with basic requirements. Three of the fourteen participants live in a studio apartment, ten of them live in shared accommodation with their roommates, while one of them lives in a private one BHK apartment.

Most of the participants took the time to adjust to their new rooms and apartments. The initial month was a month of adjustment for them. They were comparatively fine in the day as to the night. The nights were quiet and being alone in a new place made them feel threatened and vulnerable. The silence of the night was not something the participants were familiar with.

A Yes. Initially I could not sleep at all. So, I slept with a guy that I came with. It felt weird. But slowly, I tried sleeping on my own and somewhat did it. Now my sleep schedule is fine. Its similar to what I had back home.

(P4, India)

A it was hard to me to adjust to my new room. It was different from what I had. First day I felt weird. But the night was the worse. So quiet, dark and I was all alone. This loneliness in the initial days hampered my sleep pattern.

(P4, India)

i have to sleep all alone and sometimes it is difficult. it is more difficult when the day is boring like.. when there is nothing much to do in the day.

(P13, India)

This change in living environment not only affected their sleep cycle but also made an impact on their physical appearances and energy levels. As mentioned by one of the participants that her irregular sleeping pattern was resulting in dark circles which were an unwanted appearance trait with which she was unhappy. Correspondingly, a disturbed sleeping pattern was responsible for a lethargic attitude in the students.

I am not, I'm usually not energetic during day time.

(P6 India)

The participants were willing to change this attitude towards their sleep and many have successfully done so. Currently, most of the participants have a sleeping schedule similar to what they had before coming to Newcastle.

Not only did the new lifestyle target their sleeping pattern, but it also targeted their dietary pattern. Participants claim that living alone is sad and functioning in that condition becomes difficult. Due to a lack of presence of familiar people around them, they do not feel the zest to work or accomplish daily chores. One such chore is cooking for oneself.

late for my lectures, so I don't have any time to prepare breakfast for myself. Another reason is that mostly I am alone in my room and cooking just for myself, I mean all that efforts for myself and then cleaning everything seems like a lot of work and I don't feel like doing it. The easy way out is

(P1, India)

Lack of motivation for self-sustenance accompanied by laziness make the task daunting for students. Also, lack of experience and not being used to such a lifestyle makes it harder for them to adapt in their initial days. Although they get used to the lifestyle after a span of three months, the dietary schedule stays disturbed.

- *Balancing university life and personal life*

Students choose abroad education to achieve a degree and get some life experiences alongside. These students have been managing their personal life and academic life before as well. But this time, because of the changes in living arrangements, it has become comparatively tough. They not only have to do the usual activities that they used to do as a student but now, numerous other tasks are now added to their list. For instance, along with worrying about the deadline for the assignment, they also need to plan for the meals that they are going to have in a day. They correspondingly need to learn about society, socialize but also not lose focus from their



academics. They have to complete all these duties while maintaining their mental and physical health.

One of the participants had a brilliant idea to manage all the tasks. He made a time table for himself for each day to be followed. This helped him to stay on track with the university work and also helped him make time for other errands. This makes him regular and punctual in functionality making sure that he is not missing on anything important.

**A running deadline . i try to utilise y day time as much as i can complete my assignments. i try to stay regular with my work and not procastnate that. so i have made a time table that i follow.**

*(P3, Vietnam)*

As established before, Newcastle has an image of being a city of nightlife. Students did not want to miss out on this popular nightlife experience of Newcastle. This sometimes leads to late-night scheduled which interferes with their sleep cycle. This type of attitude is acceptable untill the time it does not a habit. Another reason for the disturbed sleeping pattern is late-night studying. Many students follow the tradition of working on their assignments late in night. This night owl approach leads to them sleeping late at night, which results in getting up late in the morning, thus skipping breakfast to catch the morning lectures.

**A Yes, there are changes I go to sleep pretty late and usually have around 4 or 5 hours of sleep.**

**A the main reason is because i have to do a lot of work like uni work, person work and also partying!**

*(P6, India)*

This makes them miss an important activity of the day- breakfast. Studies have shown that young adults who skip breakfast do not meet two-thirds of the Recommended Dietary Allowance as compared to those who consumed breakfast. Young adulthood is a critical age of childbearing. It also sets the stage for lifestyles that influence later health behaviours. The habit of skipping breakfast reportedly increases with age. Because young adults are vulnerable to aberrant eating patterns, they are at risk for nutrient inadequacies and dietary excesses of selected nutrients (Nicklas et al., 1998).

In conclusion to the theme of changing lifestyles, it can be said that these changes help the students to discover their priorities and balance accordingly. A change in their living conditions

may not seem to be a life turning change at first, but the slight changes that it makes, lead to certain changes in health behaviours.

### *Changing social circle*

Friendship is a crucially significant component for international students in satisfying their deep intimate and emotional needs. Aristotle, who is considered the champion of friendship, argues that the happy man will need friends. Even Maslow gave importance to friendship by placing it at the third level of the hierarchy of needs, where it satisfies the need for love and belonging. Commonly, friendships have a large impact on the lives of most people in most cultures. Acquaintance development of international students has been widely studied by researchers on every continent. These researchers have found that friendship formation is among the utmost vital factors for satisfaction, acculturation, success, and social support for the international students studying in foreign universities.

To attain this satisfaction, international students tend to observe the habits of the local students and try to be like them. This is tough for them as they have to start the procedure of friendship formation from the beginning. Not everyone is a master in socializing. Some students find a medium through which they can interact with other students and form acquaintances. One such habit that students noted was smoking. In the fear of being left out, some have started to adapt to behaviors like smoking in order to interact with fellow mates. This habit of substance use in no time may become a habit of substance abuse. This constant need for socialization acts as a reinforcement for some newly developed health behaviours.

In order to derive confirmation from the social environment, some international students (mostly undergraduates) tend to form false consensus bias where they overestimate the extent of their behaviour and suppose that they are normal (False Consensus & False Uniqueness, 2007). The formation of false consensus is said to be significant because it helps to increase self-esteem level. This helps them stay socially satisfied with themselves and their current life.

A many people here smoke. I saw that was a way to socialize and being new and to make new friends, I thought it might be a good idea to socialize with them in one of the most used areas- smoking areas. Also, the temperature was too cold, and smoking gave me some body heat. I did not want to be odd one out in this unknown place and stay alone. I wanted to socialize really bad and wanted to make friends. I saw smoking as one of the mediums to do so.

(P4, India)



i am less talktive with people, kind of an introvert person and felt smoking will provide me with good company easily.

*(P7, India)*

Some of the participants did not smoke before coming to Newcastle. Seeing smoking areas being used by other students to meet and discuss issues made them realize the potential smoking might have in initiating bonds. International students have a fear of being lonely in a brand-new environment and comprehend its effects on their developing personality.

On contrary to the negative health behaviours like smoking that some developed, others have shown the adoption of positive behaviours in their approach to make friends. One such behaviour is taking care of one's health. In the pursuit of finding friends, some students started to go to the gym as they see this activity has the potential of making friends.

Even when international students are successful in forming bonds, they are not able to see that relationship as a long-term relationship. This is for understandable reasons. The students compare their new friendship with the ones they have had back at home which was a result of a long period of time spent together. Having new friends develop some trust issues in the beginning phases. They might not trust them immediately but with time, they tend to find their way around it or some lucky students develop the sense to confidence with their new-found mates.

Not really. I try to stay healthy. Not having many close relationships as I had at school and other places. But I kind of found my rear round and show me like its nice, it is difficult. Sometimes it makes you lonely.

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*(P5, Germany)*

Having said so, these friendships help international students grow an emotional state of acceptance and approval from at least some sectors of the host culture. This provides them with higher levels of contentment and feelings of social connectedness and satisfaction. Participants who reported more friendship variability with host country individuals described themselves as more satisfied, content, and more socially connected. (Aune et al, 2011).

## **Discussion**

This study explored the vicissitudes in health behaviours and their effect on the self-esteem level of 14 international students. This study relies upon the memories that participants have

about their previous health behaviours and how these behaviours have changed upon moving to Newcastle. The finding of this study corresponds with theories and data from other quoted studies. The study by Ted, E Dielman, et al, (1984) states the urgent need for the identification of motivational factors for the youth to adopt positive health behaviours. Some motivational factors have been spotted in this study which enabled young adults to practice positive health behaviour. These factors were strong belief system and healthy social circle. Strong belief system helped them to stay on the track of healthy behaviours and thus not changing the track to negative health behaviours. Healthy social circles also affected their health behaviours in positive ways. For instance, it motivated participants to involve themselves in exercises, eating nutritious, and reducing alcohol intake. It was seen that the behaviours of the participants were in accordance with the ASE theory (De Vries et al, 1998). External factors like environment did affect the attitude, the level of self-esteem and social status which led to the development of certain intentions which turned into behaviour. Moreover, the factors predicted by Ajzen (1991) in the Theory of Planned Behaviour leading to a certain form of behaviour were practically understood.

The findings in this study also agree with the NHANES survey (Mellissa et al., 2008) that young adults do not consume the right amount of servings of fruits in a day. Although the participants knew about that but chose to ignore it. Similar ignorant behaviour was marked in the study by Ted, E Dielman, et al, (1984). Changes in health behaviours led to modifications in the self-esteem of the participants. This study expresses affirmation with Erik T's study (2004), that high self-esteem is directly proportional to exercise and positive health behaviours. It was noticed that for most of the participants, health behaviours shifted to negative but the overall level of self-esteem did not. The self-esteem level, despite the various behavioural changes either remained similar to what they previously had or elevated as compared to the previous level. At most, participants felt guilty for their shift towards negative behaviours. Changes in health behaviours had a situational impact on their self-esteem level. For instance, a student who was not into a habit of drinking has now started to drink in order to feel associated with the current social group. This feeling of being able to relate to the social circle elevates the student's self-esteem level.

It was reportedly a stressful task to adapt to all the sudden changes. All the participants wanted to make the best out of what they had. They all faced some troubles in understanding and cooperating with the changes initially. Participants could have contacted the international society of the university to find out more about the life of international students in Newcastle

and also to make connections. These connections could have helped them to be more prepared for the upcoming changes.

### **Limitations**

Due to the chiefly qualitative nature of the study, there are limits in the transferability of the data. Some did not share information about the behaviour of their social circle and also about their current and previous sexual behaviours; while some commented very little about it. Individuals may have chosen not to answer these questions due to several reasons, such as not being comfortable sharing about their sexual behaviours, and therefore, this information cannot be determined. Also, a majority of the participants were from India, it becomes hard to validate these findings for other international students. This might have been avoided if the communication with the international society went as expected as then there were chances to receive a more heterogeneous group of participants.

### **Future work**

Before accounting the future research in this area, it is important to reflect upon the long-term application of this study. Due to the rapid progression of students opting for foreign education, it is important to note the issues faced by them and come with practical solutions for them. This study has the potential to aid future international students to be prepared for the challenges ahead for them. In addition to this, universities can look upon the obstacles that international students face and arrange for the required sessions.

From this research, it is recommended that further research involves a wider participant pool. With more participants, a mixed methods study can be conducting. This may also involve the use of Rosenberg's self-esteem questionnaire. Furthermore, apart from the basic health behaviours included in the study, mental health behaviours can also be included to gain a wider perspective of the behaviour change. Finally, solutions to prevent the apparent shift towards negative health behaviours can be further investigated.

### **Conclusion**

Factors responsible for the changing health behaviours were environmental changes, autonomous changes, changing lifestyle patterns, and new social circles. These factors led to

changes in the thought procedure of the participants which led to changes in their behaviours. Not only alterations in physical behaviours but alterations in cogitating style was also noticed. These alterations resulted in a change in the level of self-esteem of the participants. Major changes were seen in the dietary pattern and the amount of physical movements of the participants. Participants mentioned skipping meals (mainly breakfast) due to a variety of reasons. 9 participants had a junk food dominated diet while only 5 participants accomplished upholding a healthy food diet. All the participants mentioned an increase in the amount of their physical workout as most of the travelling is walking based. The sleeping patterns were initially disturbed mainly due to environmental factors. The alcohol consumption for most of the participants increased. Cultural differences and lack of adult supervision were the key reasons for that. Also, participants found drinking as a way of socialization and making friends. Only 5 participants were non-drinkers and were proud of themselves for not changing their behaviour under the change of circumstances. The health behaviour affected the most was the dietary pattern. Some participants upon moving to Newcastle had a more active sexual life. These participants were involved in safe sexual behaviours. They were cautious of their acts and did not display risky behaviour. There were equal number of smokers and anti-smokers in the participant pool. However, 5 of the smokers started smoking after moving to Newcastle. Participants who smoked found smoking as a stress relief activity. Other reasons matched with the reasons for increased alcohol consumption.

Social circle did have a noticeable impact on health behaviours. Most of the behaviour changes like going to the gym, smoking, drinking, etc., were done under the influence of the social company. On adapting to a certain behaviour, which they commonly saw among their fellow mates, made them feel like a part of the group. Not only that, but intercultural connections helped them learn about their new environment, accepted behaviours and also helped them learn new skills. Sense of belongingness and new-found knowledge helped them boost their self-esteem levels. However, international students sometimes felt excluded due to cultural differences. They tend to dislike or lose interest in certain activities. This makes them exclude themselves from those activities, as a result of which they end up spending their time alone to which they are no habitual. Lack of social indulgence may create a feeling of loneliness among international students. Nevertheless, they all know that this phase is temporary and will pass soon.

Changes in health behaviours are due to various factors like environmental changes, lifestyle changes, need for social validation, and a sudden change in the level of independence. All these

factors are equally responsible for the changing health behaviours as they all displayed a connection among them.

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