

# Dietary Habit Adjustment of International Students in Kazakhstan: An Autoethnographic study

LYDIA BEMAH

Over the past decades, the internationalization of higher education has become a significant global trend, with countries like Kazakhstan developing policies to attract international students. However, studies indicate that international students encounter myriad challenges in their adjustment process which sometimes hinder them from achieving their dream academic goals. Using an autoethnographic perspective, I explored the challenges I have encountered with my dietary habits adjustment as an international student studying in an unfamiliar cultural and geographical context. I highlighted the causes of my dietary adjustment challenge, which primarily stem from the unavailability of familiar food ingredients. I also highlighted the overall effect this adjustment challenge has had on me and the strategies I have employed to mitigate the challenges and the effects of the challenges. Since food is a basic necessity for humans, fulfilling not only biological needs but also social and psychological ones, prioritizing the dietary adjustment of international students is crucial. I, therefore, recommended an intervention that can be implemented to mitigate the dietary adjustment challenges faced by international students.

*Keywords:* International students, dietary habits, acculturation adjustment.

## Introduction

There has been a global trend of internationalization of higher education over the last three decades (Kim, 2020). International students offer a substantial economic benefit to the host country; therefore, prioritization of their adjustment has become the focus of many countries. (Allen & Higgins 1994, as cited in Hartwell, et al. 2011). Kazakhstan, as part of integrating into international standards, has also increasingly devised policies to attract international students to its higher education institutions (Akkari et al., 2023). In their study about the insight of higher education internationalization in Kazakhstan, Jumakulov and Ashirbekov (2016) claimed that the government of Kazakhstan is actively making efforts to integrate Kazakhstan's higher education system into international standards. The signing of an intergovernmental agreement, assisting degree and non-degree academic mobility for both students and staff, setting of accreditation standards and signing of the Bologna process are significant efforts made by the government towards internationalization. Additionally, there has been an introduction of the three-cycle system of higher education, alignment of the national grading systems with the European Credit Scheme, and the establishment of English medium universities which aims at facilitating inbound and outbound academic mobility (Mukhamejanova, 2019).

Internalization of the higher education system is seen as a medium through which modernization can be achieved in Kazakhstan and help in integrating into the

international standards (Akkari, et al.2023). Therefore, both students and educators in Kazakhstan have a positive attitude towards it and perceive it as real and achievable even though they accept that there are barriers to be overcome (Maudarbekova and Kashkinbayeva, 2013). Because the internationalization policy also considers the inbound mobility of students, the successful adaptation of international students has become an issue of priority for higher education institutions and the government (Mukhamejanova, 2019). This is an issue of higher importance because proper adaptation helps to attract and retain more international students to a country's higher education institutions (Brown et al., 2010; Chukwu, 2016; Gahwal & Urkunova, 2016).

As a result, many researchers have begun exploring how these international students adapt to their stay in Kazakhstan. Gahwal and Urkunova (2016) in their study of international students' adaptation to the reality of Kazakhstan highlighted language barriers and differences in educational assessment as obstacles to international students' adjustment. Additionally, Hajar et al. (2024) in their qualitative study of African students' adjustment in EMI universities in Kazakhstan found that African students experienced challenges with the language barrier, harsh weather conditions and limited socializing opportunities. These findings are supported by Mukhamejanova (2019) who added financial difficulties and housing problems as significant challenges faced by international students.

Several studies have indicated that international students experience changes in their dietary habits when they migrate to the host country. Food habits are a culture people grow up with and they play both physical and emotional roles in people's lives (Brown et al., 2010; Chukwu, 2016). These habits are influenced by factors such as religion, geographical location, family traditions, and personal preferences among others (McKay & Subramoney, 2017). What is therefore considered as food by one person may not necessarily be considered as food by another person. Because food habits are cultures learned from childhood, people feel very resistant to change as they grow (Carvellon & Dube, 2005 as cited in Hartwel et al., 2011). However, various researchers have indicated that international students experience changes in their dietary habits which may adversely affect their health (Alakaam et al., 2015; Almohanna et al., 2015; Brown et al., 2010; Lee. et al. 2018). Non-communicable diseases such as increased blood sugar, increased fatigue, abdominal discomfort and weight gain are some of the diseases these students encounter (Alakaam & Wilyard, 2020).

With deteriorated health, it is obvious that international students may not be able to thrive in their academic pursuits which may affect both the students and the institutions. Therefore, there is a need to consider how international students adjust to their dietary habits when they migrate to Kazakhstan. This is very important as it will help to avoid poor health in students which can affect their productivity in the academic environment.

The following research questions will facilitate the in-depth exploration of the issue.

1. What were the dietary habits of international students when they were in their home country?
2. What are the challenges international students encounter adjusting to the dietary culture of the host country?
3. What are the strategies employed by international students to facilitate their dietary adjustment process?

### Literature Review

Several studies have found that international students experience changes in their dietary habits and patterns in their host country. Almohanna et al (2015) in their quantitative study explored the effect of dietary acculturation on the health of newly arrived international students in the US. He found that students experienced a gradual shift of their dietary habits from their native diet to the US diet system. Lee et al (2018) also noted in their quan-

titative study that East Asian international students in the US consumed more processed foods and fewer cooked vegetables which indicates that they are adopting the US dietary habits and rejecting their traditional dietary habits. A similar pattern was observed in O'Sullivan and Amirbdollahi's (2016) qualitative study of international students in the UK. They identified change in dietary habits as an important challenge faced by international students in the UK. Similarly, Danquah et al. (2010) in their quantitative study observed that international students in Ghana experienced a different dietary habit from what they experienced in their home country. According to research, the main cause of this challenge is the unavailability of familiar ingredients and the high cost of the available ones (Alakaam & Wilyard, 2020; Chukwu, 2016; Danquah, et al., 2010; Dean et al., 2023; Perez-Cueto et al., 2009).

Noyongoyo (2023) conducted a quantitative study to examine international students' dietary adjustment challenges specifically focusing on students from Sub-Saharan Africa. He found that the limited availability of familiar food commodities, coupled with the high cost of the available ones hindered international students in their dietary habit adjustment. This compelled them to adopt the US diet and abandon their native diet due to its limited availability and high cost. Similarly, Hartwell et al. (2011) in their qualitative study of 10 students from Asia and Europe examined the extent of international students' adjustment in the UK. They also found that food availability and finances are the major external factors that hindered international students' dietary adjustment. They claimed that the students reported finding no familiar commodities available in local grocery stores. Consequently, they had no choice but to adopt the UK diet. This led them to complain bitterly about the convenience and fatty nature of the UK diet which they perceived as having an adverse effect on their health. Alakaam and Wilyard (2020) qualitative study of international students' dietary adjustment in the US also found that the major source of dietary challenges for international students is accessibility to familiar foods. Similarly, Bauch's (2023) qualitative study of international students in Norway found that the high cost of food and the limited availability of commodities are major barriers to international students' dietary adjustment. This trend has been observed in similar studies on international students in Belgium, Canada and Ghana (Danquah et al., 2010; Chukwu, 2016; Perez-Cueto, et al., 2009). Other significant factors that affect international students' dietary adjustment in the host country are their country of origin, religious beliefs, personal

preferences and social support among others (Alakaam, et al., 2015; Alakaam & Wilyard, 2020; Alshehri et al., 2021; Bauch et al., 2023).

The changes in dietary habit of international students have been found by various studies to have adverse effects on their health. According to Bleich et al. (2015), there is a complex relationship between the diet of individuals and their health. This means that food habits have the potential to influence the overall well-being of individuals. Walker et al. (2023) claim that healthy eating habits help to improve the health of individuals and unhealthy eating habits deteriorate health.

Alakaam and Wilyard (2020) in their qualitative study on the dietary intake changes and the factors related to dietary acculturation of international students found that international students encountered health challenges after adjusting to the US dietary system. They highlighted weight gain, increased blood glucose, and mental health issues among others as the health challenges that these students encountered. Almohanna et al. (2015) also found that international students experienced weight gain after acculturating into the US dietary culture. Almohanna et al. claimed that this may have a potential influence on the health of the students. However, the study did not investigate their health to confirm the relationship, therefore, their conclusion was speculative.

As Kazakhstan seeks to attract more international students into their higher education institutions, there is a need to employ different mechanisms to facilitate their dietary adjustment to ensure the overall well-being of these students.

Hence this study seeks to explore the dietary habit adjustment of international students in Kazakhstan. Dietary habits refer to the deliberate and repeated choices individuals make in selecting, consuming, and incorporating specific foods or diets into their lives, influenced by societal and cultural factors (Rivera Medina et al).

### Theoretical Framework

The present study will utilize the acculturation model to explain the dietary habit adjustment of international students in Kazakhstan. According to Dohrenwend and Smith (1962), acculturation is what happens when diverse cultures come into constant firsthand contact. Berry (2006) also defines acculturation as a process of change that results from two or more cultures coming together.

Berry proposed four models of acculturation namely assimilation, integration, separation and marginalization (Kim, 2007). Integration is when an individual maintains native culture while adopting the host country's culture. Assimilation is the adoption of host culture and rejection of native culture. Separation is when an individual maintains the native culture while rejecting the host country's culture and marginalization is when an individual resists to adopt the host country's culture yet rejects their own culture (Kim, 2007). This theory has been used by different researchers to explore the dietary habits of international students (Chukwu, 2016; Noyongo, 2023). This model is useful for my studies because international students have their own dietary culture yet upon immigration, they are forced to fit into one of the models of acculturation.

### Methodology

In this present study, I will employ the autoethnographic research design to examine and analyze my dietary habits adjustment as an international student. Autoethnography, as a qualitative research method, offers a unique lens through which personal experiences are explored and understood within the context of cultural adaptation (Raab, 2013). It helps individuals to narrate their lived experiences, reflecting on the interplay between self and culture (Starr 2010). By intertwining personal narrative with cultural analysis, autoethnography allows for a deeper exploration of the complexities of cultural adaptation and identity negotiation. As an international student, I have experienced diverse complexities associated with changes in culture, environment and dietary habits. These complexities have influenced my adjustment process, therefore, employing a personal narrative of an autoethnographic approach will help me to explore in deeper detail my own experiences in my adjustment process. Starr (2010) claims that autoethnography serves as a powerful tool for storytelling, enabling researchers to explore their own experiences to uncover insights about broader social phenomena.

Through the process of self-reflection and narrative construction, auto-ethnographers can illuminate how cultural contexts shape individual beliefs, behaviours, and identities (Starr, 2010). This aligns with the purpose of my study and my research questions, as I seek to explain the challenges of my dietary adaptation journey as an international student in Kazakhstan in depth.

Moreover, Raab (2013) emphasizes the importance of active researcher engagement in autoethnography, highlighting the role of reflexivity in generating authentic

and nuanced insights. By critically examining my own experiences and biases, I uncovered the deeper layers of meaning within my narrative, shedding light on the dynamic processes of my dietary cultural adjustment and identity negotiation. Through this reflexivity, I aim to go beyond mere description and provide a more insightful understanding of the challenges and opportunities inherent in adapting to a new food environment.

### Ethical Consideration

Although autoethnographic research centers on the writer's personal experiences, it emphasizes the shared experiences with others, despite being conveyed through the researcher's voice (Roth, 2009). It is therefore a necessity to consider the ethical issues that may arise and the suitable remedies that will be employed to deal with them. I acknowledge that this approach may have some limitations. The use of my personal experiences may influence the study, leading to biased conclusions. This may affect the credibility and rigor of the study (Hayon, 1970). I will therefore draw on similar studies to make legitimate comparisons and conclusions to alleviate personal biases and enhance the credibility of my study. In this study, I exclusively shared my own experiences as an international student, without recounting the stories of other international students or mentioning any specific institutions. Therefore, the ethical issues of informed consent and anonymity are not breached (Jane, 2021). The expression of my dietary experiences as an international student indirectly interconnects with the experiences of other international students and this presents an ethical issue (Roth, 2009). Therefore, I will present my experiences using clear, respectful language to avoid defaming other international students.

### Dietary habits in my home country and Kazakhstan

According to Scaglioni et al. (2008), food consumption is a learning process. This implies that people learn to eat what is available to them and develop attitudes towards these foods through eating (Scaglioni et al., 2008). Consequently, this learning process of food consumption and the attitudes towards the food consumed form individual dietary habits. Additionally, these dietary habits are shaped by the cultural background, orientation, and personal traits of the individual (Kittler & Sucher, 2004).

My dietary habits have been shaped by several of the aforementioned factors. I am from the Southern part of Ghana, a place known for its wide cultivation of root tubers and plantains (Doku, 1967). In my home country, Ghana, I had access to a diverse range of these food

commodities together with other ingredients such as beans cereals and grains which are cultivated in other parts of the country or imported from neighboring countries. There were also animal sources of protein such as meat, eggs and dairy products which I heavily relied on for hunger satisfaction. I carefully selected these food commodities to prepare different varieties for breakfast, lunch and supper. I enjoyed three square meals, with intermittent snacks to meet my caloric needs of the day. Unfortunately, my dietary intake fell short on fruits, seeds, and nuts, resulting in a deficiency of crucial minerals and vitamins necessary for sustaining optimal health (Ros, 2010; Slavin & Lloyd, 2012). Rather, I relied on animal-source protein, starchy roots and plantains. The major factors that influenced what I ate in my home country were the cost of the commodity, my religious beliefs and my preference. With my religious background, I do not eat all kinds of meat and fish and therefore I was limited to very few meats and fish. Most of the fruits such as grapes, apples, and strawberries are not cultivated in the country which makes them very costly, therefore I did not consume them regularly. Despite the availability and affordability of fruits like oranges and mangoes, which are locally grown and inexpensive during their peak seasons, I refrained from consuming them due to my dislike for their taste, even when they were offered to me at no cost. Despite these factors, I had a wide range of varieties that helped me to satisfy my hunger and feel psychologically good.

Moving to Kazakhstan has been adventurous for me, especially in my dietary habits. I have been exposed to a wide range of fruits and some vegetables that were quite unaffordable to me when I was in my country, Ghana. I also get access to animal sources of protein such as meat fish, dairy, and eggs. Nevertheless, the main staple crops which form the basis of my diet cannot be found here. This limits the variety of meals available to me. As such, the number of meals I eat in a day has reduced to only two, mainly breakfast and dinner. This is similar to the experience of Arabians staying in the US as found by Brittin and Obeidat's (2009) study. I usually snack on fruits, nuts and seeds which are considered to be healthy (Ros, 2010; Slavin & Lloyd, 2012). Because my options are restricted, I rotate only three diets on my menu every day. I take only rice, potatoes and semolina. Unfortunately, I am unable to consume the Kazakhstan diet because it tastes not spicy and bland to me.

### Challenges I Encountered

I have encountered limited challenges with my dietary habits as I moved to Kazakhstan. These challenges pri-

marily stem from the unavailability of familiar food commodities. Unfortunately, I do not get access to the plantains and root tubers here in Kazakhstan. However, these form the basis of my diet. The major vegetables and leaves used for preparing soups and stews are also unavailable. This places a major limitation on the variety of meals available to me. Eating the same foods repeatedly often dampens my appetite and leaves me without the desire to eat. Due to this, I mostly stay hungry and rather depend on snacks for hunger satisfaction. Living without my food as described by Noyongo (2023) makes me feel homesick, longing to return home. Additionally, I sense that I am not meeting my daily caloric requirements, which makes it challenging for me to maintain a healthy weight.

However, unlike the experiences of other international students, this doesn't present any health challenges for me (Alakaam et al., 2015; Almohanna, et al., 2023). With the addition of nuts, seeds and fruits to my diet, my health has drastically improved.

### Strategies Employed to Mitigate the Challenges

I have employed various techniques to address the challenges I encounter in adjusting to my dietary habits. Firstly, I experimented with unfamiliar items, particularly fruits, seeds, and nuts. If I found them palatable without any allergic reactions, I incorporated them into my diet. Otherwise, I rejected them and sought out new options. As a result, I have curated a collection of fruits, seeds, and nuts that I enjoy as snacks. Additionally, I combined the few familiar commodities available to prepare a similitude of my home food. However, since the familiar commodities are limited, I am unable to prepare varieties leading to repetition of the food consumed.

### Discussion

The present study, using an autoethnographic strategy, under the lens of acculturation theory explored the dietary habit adjustment of an international student in Kazakhstan. From my reflection, there has been a drastic change in my eating patterns as I migrated to Kazakhstan. This change resulted from limited food commodities available to me, which hindered me from accessing and consuming a variety of foods. This narration aligns with Noyongo's (2023), study in the US which found that students from Africa shifted their diet to the US dietary system due to the unavailability of their native commodity. Similarly, Hartwell et al. (2011) also found that the unavailability of native foods was a barrier to healthy eating for international students in the UK. Danquah et al. (2010) also found that international students

experience changes in their dietary habits due to the unavailability of their native food in the Ghanaian market.

This is particularly true because geographical location determines the kind of crops that are cultivated in a particular country or region (Leff & Foley, 2004) even though some commodities may be imported from other countries. This may explain why international students may experience challenges getting familiar food commodities in a different country. This means that international students either assimilated or integrated into the host country's dietary culture. Thus, they either moved away from their native's country dietary culture or maintained it while adopting the host country's dietary culture. This acculturation, in my opinion, was not the desire of the students but rather, they seemed to have no choice. Consequently, international students in the UK reported the UK diet as fatty, bland and unhealthy. Despite this, I would not say I have assimilated into the Kazakhstan dietary culture rather, I separated from it. I did not make any effort in my dietary habits to adopt the Kazakhstan dietary culture. I strictly clung to my native dietary habits rejecting that of the host country. Moreover, in contrast to other studies, the cost of commodities does not serve as a barrier to procurement for me (Bauch, 2023; Dean et al., 2022; Tran, 2021; Noyongo, 2023). The food commodities available on the Kazakhstan market are highly affordable which allows me to try new commodities without a fear of wasting money.

Additionally, I reflected on the effect of these dietary adjustment challenges. The change in eating patterns and unavailability of familiar commodities resulted in the feeling of homesickness. My feeling of homesickness has been highlighted by many researchers as a consequence of students lacking access to their home meals (Alakaam et al., 2015; Almohanna, et al., 2015; Noyongo, 2023). However, in contrast to most studies of dietary adjustment of international students, I do not encounter any health challenges resulting from my dietary adjustment (Alakaam & Wilyard, 2020; Awudi et al., 2024; ul Haq et al., 2018; Walker et al., 2023). This is justified by Smith and Khawarja's (2011) claim that when individuals encounter acculturative stress, a further analysis occurs regarding whether they have enough resources and strategies to deal with it. Even though I do not meet my caloric requirement for the day, this does not pose any challenge to my health because I possess sufficient strategies to cope with it. With my background as a food and nutrition teacher, I carefully select commodities for food preparation with limited or no intake of ultra-processed foods which have been investigated

to pose health challenges (Gibney et al., 2017).

This aligns with Perez-Cueto et al. (2022) study in Belgium which found that international students employed different mechanisms to cope with their dietary challenges which helped to improve their health. By incorporating a balanced mix of fruits, vegetables, nuts, and seeds into my diet, I am confident that I am obtaining all the essential nutrients my body needs to function optimally. This dietary approach has significantly enhanced my overall health, as supported by Yurochko's (2021) study in Ukraine which found that international students' dietary habits significantly improve their health.

### Conclusion and Recommendation

My transition into Kazakhstan has caused imminent changes to my dietary habits. These changes have had a significant effect on my adjustment as food tends to be a basic necessity of humans and it is necessary to improve health (Martin & Li, 2017). In the absence of adequate nutritious food, human life comes to a halt which may affect every aspect of life including academic success. Therefore, ensuring the availability of adequate quality food that is familiar to international students is very necessary for their adjustment. As elaborated by Berry (2006), this will help them to successfully acculturate leading to adaptation.

The following alternative is proposed, from my experience and similar studies done internationally, to help alleviate international students' food habit adjustment challenges (Almohanna, 2015; Noyongo, 2023). Higher education institutions should strengthen the international student community so that they can provide incoming students from their respective home countries with adequate information on their dietary needs to facilitate the successful onboarding of new students. By implementing such measures higher education institutions can effectively address the challenges international students face in adapting to new dietary environments, ensuring their well-being and easing their transition into Kazakhstan culture. This study cannot be generalized since it is based on the researcher's experiences which may be subjective.

Further quantitative study, with a large sample size, is needed to understand the overall dietary habits of international students to enable rigorous conclusions and generalization.

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