Consumption Attitude and Misconception on Protein Supplement among the Youths of Kathmandu Valley

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Abstract

This study examines the consumption attitude and misconception on protein supplement among the youths of Kathmandu Valley. Consumption attitude and misconception is the dependent variable. Need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level, and product attributes are the selected independent variables. The primary source of data is used to assess the opinions of respondents regarding need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level, and product attributes. The study is based on 123 respondents from youths of Kathmandu valley. To achieve the purpose of the study, structured questionnaire is prepared. The correlation and multiple regression models are estimated to test the significance and importance of consumption attitude and misconception on protein supplement among the youths of Kathmandu Valley.

The result showed that need of good nutrition consumption has a positive relationship with consumption attitude and misconception. It indicates that increase in need of good nutrition consumption leads to change in consumption attitude and misconception. Likewise, knowledge on nutritional protein has a positive relationship with consumption attitude and misconception. It indicates that good knowledge on nutritional protein leads to change in consumption attitude and misconception. Similarly, exercise type has a positive relationship with consumption attitude and misconception. It indicates that proper exercise type leads to change in consumption attitude and misconception. Furthermore, brand awareness has a positive relationship with consumption attitude and misconception. It indicates that increase in brand awareness leads to increase in consumption attitude and misconception. Moreover, income level has a positive relationship with consumption attitude and misconception. It indicates that increase in income level leads to increase in consumption attitude and misconception. Similarly, product attribute has a positive relationship with consumption attitude and misconception. It indicates that change in product attributes leads to change in consumption attitude and misconception.

Keywords: consumption attitude and misconception, need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level

1. Introduction

Protein supplements are one of the most popular dietary supplements used by athletes, recreationally active adults, and soldiers striving to increase muscle mass, improve exercise recovery, and improve performance (McLellan, Pasiakos, and Lieberman, 2014). Dietary supplements refer to those that

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compensate for the lapses in the routine diets daily nutritional requirement. Dietary supplements to be available in the form of tablets, capsules, gummies, liquids, jelly, powders, energy drinks, and energy bars (Dudeja and Gupta, 2017). The use of dietary supplements (DSs) widespread in the general population, in those who participate in sports, and in military populations. A comprehensive review of the evidence from several surveys of supplement use in military personnel (Maugham and RJ, 2013). Consumers can include various sources of proteins in their diets for example replacing meat with a meat substitute, or using alternative proteins like seaweed or beans in their dishes. A convincing body of evidence demonstrates that the overconsumption of meat contributes substantially to worrisome environmental impacts and to lifestyle diseases (Onwezen *et al.,* 2021).

Wilson *et al.* (2002) concluded that aging leads to deregulation of the physiologic processes that control food intake. This may explain the failure of the elderly to adjust their food intake to compensate for deviations in their body weight from baseline. Consequently, negative energy balance in older adults increases the risk of under nutrition, underscoring the importance of early nutritional intervention. Med (2007) investigated the supplement use by young athletes. The study found that many dietary supplements are highly accessible to young athletes and they are particularly vulnerable to pressures from the media and the prospect of playing sport at increasingly elite levels. Likewise, Wilson *et al.* (2002) analyzed the effect of liquid dietary supplements on energy intake in the elderly. The study showed that in the elderly, administration of dietary supplements between meals instead of with meals may be more effective in increasing energy consumption.

Dickinson *et al.* (2014) investigated the consumer usage and reasons for using dietary supplements. The study found that the primary reasons given for supplement use are for overall health and wellness or to fill nutrient gaps. Users of dietary supplements are more likely than nonusers to adopt a variety of healthy habits, indicating that supplement use is part of an overall approach to living healthy and intake. In addition, Snijders *et al.* (2015) analyzed the protein ingestion before sleep. The study showed that protein ingestion before sleep represents an effective dietary strategy to augment muscle mass and strength gains during resistance exercise training in young men. Similarly, Tang *et al.* (2007) analyzed the minimal whey protein with carbohydrate stimulates muscle protein synthesis following resistance exercise in trained young men. The study showed that a small dose (10 g) of whey protein with carbohydrate (21 g) can stimulate a rise in MPS after resistance exercise in trained young men that would be supportive of a positive net protein balance,

which, over time, would lead to hypertrophy. Likewise, Kourouniotis *et al.* (2016) examined the importance of taste on dietary choice, behavior and intake in a group of young adults. The study found that the importance individuals place on taste plays an important role in influencing food choice, dietary behaviors.

Papier *et al.* (2015) investigated the stress and dietary behavior among first-year university students in Australia. The study found that a clear difference in food selection patterns between stressed male and female students, with stress being a more significant predictor of unhealthy food selection among male students. Further research is needed using a qualitative approach to understand how stress and eating behavior are related in university students. Likewise, Khandaker *et al.* (2014) analyzed the association of serum interleukin 6 and C - reactive protein in childhood with depression and psychosis in young adult life. The study showed that inflammatory pathways may provide important new prevention and intervention targets for major mental illnesses while also undermining the unhelpfully persistent cartesian division between the mind and body. Similarly, Pereria (2002) analyzed the dairy consumption, obesity, and the insulin resistance syndrome in young adults. The study showed that dietary patterns characterized by increased dairy consumption have a strong inverse association with IRS among overweight adults and may reduce risk of type 2 diabetes and cardiovascular disease.

Bianco *et al.* (2015) investigated the protein supplementation in strength and conditioning adepts. The study stated the importance of the dissemination of scientifically based information about supplementation in this environment and the promotion of updated educational programs for the instructors. Likewise, Alfaris *et al.* (2015) examined the trends of fast-food consumption among adolescent and young adult Saudi girls living in Riyadh. The study found that an urgent need for community-based nutrition interventions that consider the trends of fast-food consumption and targeted eating behaviors of adolescent and young adult girls. Moreover, Lieberman *et al.* (2015) analyzed patterns of dietary supplement use among college students. The study found that college student chooses protein supplement according to income level. Similarly, Beelen *et al.* (2008) stated that congestion of carbohydrate and protein hydrolyses stimulates muscle protein synthesis during exercise in young men, with no further increase during subsequent overnight recovery. The study found that even in a fed state, protein and carbohydrate supplementation stimulates muscle protein synthesis during exercise. Ingestion of protein with carbohydrate during and immediately after exercise improves whole-body protein synthesis.

Wierniek *et al.* (2013) investigated the estimation of energy and nutritional intake of young men practicing aerobic sports. The study showed that dietary deficiencies of folate, vitamins C and D, magnesium, calcium and potassium were also observed. Further, Laureate *et al.* (2016) analyzed that the consumers' willingness to adopt insect-based food. The study found that factors affecting the Italian consumers' readiness to adopt insects as food and feed are age, gender, cultural background and food neophobia. Contrary to expectation, subjects' involvement in sustainability issues did not play a role in the acceptance of insects. Fuller *et al.* (2007) analyzed the consumption of dairy products in urban China. The study showed income and marketing channels are the key determinants of milk consumption levels. Moreover, Walsh *et al.* (2011) analyzed the body composition, nutritional knowledge, attitudes, behaviors, and future education needs of senior schoolboy Rugby Players in Ireland. The study showed that most players has a healthy PBF. Despite a positive attitude toward nutrition, poor nutritional knowledge and dietary practices are observed in many players. Likewise, Onwezen *et al.* (2021) found that a diet high in vegetable products be part of a healthy lifestyle for prevention of high blood pressure and related chronic diseases. Moreover, Nieuwenhuizen *et al.* (2010) analyzed older adults and patients in need of nutritional support. The study found that the product factors identified that especially small volume, energy and nutrient dense ONS can be effective to improve nutritional intake.

In the context of Nepal, Mishra and Tiwari (2020) investigated knowledge and compliance of iron and folic acid supplementation among pregnant and postnatal women in a hospital of Kathmandu. The empirical findings showed that the main reason of respondents having compliance is due to having proper counseling from health worker and noncompliance is due to forgetting to have tablet. Improving knowledge level only can't improve compliance level, various factors like counseling, accessibility and availability of iron and folic acid tablet, side effect of tablet and family support also affects the compliance of iron and folic acid supplementation. the higher risk of neonatal mortality among younger mothers in this setting is partially explained by differences in socioeconomic factors in younger vs older mothers; risk is mediated primarily through preterm delivery, low birth weight, newborns being small for gestational age (Sharma *et al.,* 2008).

Acharya *et al.* (2018) examined consumption of iron-rich foods among adolescent girls in Nepal. The study found that groups would benefit from nutrition education to address misconceptions. Parental support in consuming iron-rich foods, particularly from mothers, was perceived as important in both

groups, suggesting that other household members, especially mothers, should be included in nutrition education programmers. Similarly, Sunuwar *et al.* (2021) examined the association of nutrition knowledge, practice, supplement use and nutrient intake with athletic performance among Taekwondo players in Nepal. The study found that nutritional knowledge and nutrient intake both are poor among TKD athletes, height, and weight. BMI, nutritional knowledge, energy, and fat intake showed positive correlation with athletic performance.

The above discussion shows that empirical evidences vary greatly across the studies on the consumption pattern and attitudes on protein supplement among youths. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exists in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The major objective of the study is to examine the consumption attitude and misconception on protein supplement among the youths of Kathmandu Valley. Specifically, it examines the relationship of need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level and product attributes with consumption attitude and misconception in Kathmandu Valley.

The remainder of this study is organized as follows: section two describes the sample, data, and methodology. Section three presents the empirical results and final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data. The data were gathered from 123 respondents through questionnaire. The study employed convenience sampling method. The respondents' views were collected on need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level, product attributes and consumption attitude and misconception. This study is based on descriptive as well as causal comparative research designs.

The model

The model used in this study assumes that consumption attitude and misconception depends upon protein supplement. The dependent variable selected for the study is consumption attitude and misconception. Similarly, the selected independent variables are need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income

level and product attributes. Therefore, the model takes the following form:

Consumption attitude and misconception = f (NGNC, KNP, ET, BA, IL, and PA)

More specifically,

$$CAM = b_0 + b_1 NGNC + b_2 KNP + b_3 ET + \beta_4 BA + \beta_5 IL + \beta_6 PA + e$$

Where,

CAM = Consumption attitude and misconception

NGNC = Need of good nutrition consumption

KNP = Knowledge on nutritional protein

ET = Exercise type

BA = Brand awareness

IL = Income level

PA = Product attributes

Consumption attitude and misconception was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "Consumer behavior matters to influence adults view point to purchase protein supplement", "I have ability to determine which supplement to use" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.759$).

Need of good nutrition consumption was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "I have lack of protein on my food so I need to take protein supplements", "I do workout everyday so I need to consume protein for my muscle growth" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.761$).

Knowledge on nutritional protein was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "I select the protein supplement according to my knowledge on nutritional protein", "I have enough knowledge regarding nutritional protein in order to decide what to consume" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.791$).

Exercise type was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "I consume the supplement as per the type of exercise I am doing on that specific day", "My exercise type affects the product I use" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.806$).

Brand awareness was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "I am aware about the protein supplement brands available in the market that I use", "I am using the protein brand which is promoted by big key players of this field" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.721$).

Income level was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "My income level affects my purchase decision while selecting the protein supplement", "My income level is good enough to buy my preference brand product" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.786$).

Product attribute was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "I prefer to purchase the product based on its attributes", "Product with good attributes always attract me" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.755$).

The following section describes the independent variables used in this study along with the hypothesis formulation.

Need of good nutrition consumption

Good nutrition consumption is important for maintaining overall health and preventing chronic diseases. Kumar (2014) showed that need for consumption and value orientation has a positive effect on green perception and green purchase behavior. Similarly, Jones (2008) found a positive association between self-esteem and consumer behavior, indicating that individuals with higher self-esteem are more likely to engage in certain consumption patterns and exhibit favorable attitudes towards consumerism. Additionally, Peterson (2017) revealed that the drive for proper nutrition and self-care orientation

has a positive effect on perceived well-being and conscious food selection. Moreover, Thompson (2010) showed a positive relationship between the desire for optimal protein intake and consumption patterns and attitudes. Furthermore, Mitchell (2014) indicated that the inclination towards nutritional awareness and goal-oriented mindset has a positive effect on perceived energy levels and mindful eating behavior. Based on it, this study develops the following hypothesis:

H_1: There is a positive relationship between needs of good nutrition consumption and consumption attitude and misconception.

Knowledge on nutritional protein

Whitney *et al.* (2019) defined knowledge on nutritional protein as a comprehensive understanding of the functions, sources, requirements, and health effects of protein in human nutrition. Similarly, Smith (2017) found that individuals with higher knowledge on nutritional protein tend to have more positive relationship with consumption attitudes towards incorporating protein-rich foods into their diets. Further, Martinez *et al.* (2018) revealed that individuals who possess accurate knowledge on nutritional protein have more positive attitudes towards obtaining protein through a balanced diet rather than relying solely on protein supplements. Additionally, Smith (2007) found a positive relationship between knowledge on nutritional protein and consumption patterns and attitudes. Similarly, Johnson (2016) revealed that a higher level of knowledge on nutritional protein and health orientation has a positive effect on informed food choices and conscious consumption behavior. In addition, Roberts (2014) determined that there is a positive relationship between knowledge on nutritional protein and consumption patterns and attitudes. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between knowledge on nutritional protein and consumption attitude and misconception.

Exercise type

Garber (2011) defined exercise type as the specific form of physical activity performed to achieve health and fitness goals. Rockl *et al.* (2007) found that there is a positive relationship of exercise type and consumption attitude of protein supplements. Similarly, Cermak *et al.* (2012) found that protein supplementation increases muscle mass and strength gains during prolonged resistance-type exercise training in both younger and older subjects and this effect on purchase decision. Further, Snijders *et al.* (2015) found that protein ingestion before sleep represents an effective dietary strategy to

augment muscle mass and strength gains during resistance exercise training in young men, which have positive relation with purchase decision. Moreover, Verdijk *et al.* (2009) found that protein supplementation immediately before and after exercise does not further augment the increase in skeletal muscle mass and strength after prolonged resistance-type exercise training in healthy elderly men who habitually consume adequate amounts of dietary protein purchase decision. Based on it, this study develops the following hypothesis:

H_3: There is a positive relationship between exercise type and consumption attitude and misconception.

Brand awareness

According to Keller (1993), brand awareness is the ability of consumers to identify a brand, its attributes, and its associated benefits. Lee (2015) stated advertising and brand awareness, package design and product form are the mean score for importance which showed positive relation between brand awareness and consumption attitude and misconception. Likewise, Maughan (2013) analyzed the quality assurance issues in the use of dietary supplements, with special reference to protein supplements, which demonstrated there exists a positive relationship between brand awareness and consumption attitude and misconception. Moreover, Karam and Saydam (2015) showed a positive relationship between brand awareness and consumption pattern. Further, Wallace *et al.* (2010) showed that the brand awareness has turned into an important variable that impacts customer's perceptions of a brand. In addition, Shahid *et al.* (2017) analyzed the impact of brand awareness on the consumers' purchase intention. The study found that a brand awareness has a positive impact on intention of consumer towards that brand. Based on it, this study develops the following hypothesis:

H_4: There is a positive relationship between brand awareness and consumption attitude and misconception.

Income level

Yin *et al.* (2010) found that consumers' intent to purchase supplement food is strongly affected by factors such as income, which revealed a positive relationship between income level and consumption attitude and misconception. Likewise, Imelia *et al.* (2014) found that the demographics have an impact on purchase intentions for age and income levels indicator. While the models found that income level have an influence on consumer purchase. Further, Mariadas *et al.* (2019) concluded that income level and neighborhood factors have positive relationship with food purchase decisions.

Further, Williams (2002) found that to relate to the observed associations, with women generally attaching more importance to virtually purchase food all evaluative criteria and exhibiting different relative importance levels for criteria across class and income levels. Moreover, Wee *et al.* (2014) showed that consumer's perception towards food products is highly affected by income level of consumer. Based on it, this study develops the following hypothesis:

H_5: There is a positive relationship between income level and consumption attitude and misconception.

Product attributes

Product attributes as the benefits and characteristics of a product or service that make it capable of satisfying consumers' needs and wants." Product attributes can include both physical (e.g., color, size, shape) and non-physical (e.g., quality, reliability, brand reputation) aspects of the product. North *et al.* (2003) found that product attributes are the most important attribute of apparel to adults when making purchasing decisions. Similarly, Schuitema and Groot (2015) showed that product attributes are more influential, whereas if biopheric values are strong, supplement product attributes are more influential. Likewise, Auger *et al.* (2010) showed that the role of product attributes since they are based on a multi-cue, multi- product design that forced consumers to make tradeoffs between tangible and intangible attributes. Further, Bangsa *et al.* (2020) found that consumer decision-making process is influenced by product attributes. Based on it, this study develops the following hypothesis:

H_6: There is a positive relationship between product attributes and consumption attitude and misconception.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall's Tau correlation coefficients along with mean and standard deviation has been computed and the results are presented in Table 1.

Table 1

Kendall's Tau correlation coefficients matrix

This table presents Kendall's Tau coefficients between dependent variable and independent variables. The dependent variable is CAM (Consumption attitude and misconception). The independent variables are NGNC (Need of good nutrition consumption), KNP (Knowledge on nutritional protein), ET (Exercise type), BA (Brand awareness), IL (Income level), and PA (Product attributes).

Variable	Mean	S.D.	CAM	NGNC	KNP	ET	BA	IL	PA
CAM	3.633	0.804	1						
NGNM	3.164	0.824	0.278**	1					
KNP	3.538	0.768	0.395**	0.347**	1				
ET	3.600	0.785	0.388**	0.182**	0.446**	1			
BA	3.707	0.656	0.373**	0.216**	0.461**	0.516**	1		
IL	3.772	0.599	0.253**	0.155*	0.207**	0.289**	0.402**	1	
PA	3.620	0.749	0.201**	0.313**	0.196**	0.208**	0.319**	0.383**	1

Notes: The asterisk signs (**) and (*) indicate the result are significant at one percent and five percent levels, respectively.

Table 1 shows that need of good nutrition consumption has a positive relationship with consumption attitude and misconception. It indicates that increase in need of good nutrition consumption leads to change in consumption attitude and misconception. Likewise, knowledge on nutritional protein has a positive relationship with consumption attitude and misconception. It indicates that good knowledge on nutritional protein leads to change in consumption attitude and misconception. Similarly, exercise type has a positive relationship with consumption attitude and misconception. It indicates that proper exercise type leads to change in consumption attitude and misconception. Furthermore, brand awareness has a positive relationship with consumption attitude and misconception. It indicates that increase in brand awareness leads to increase in consumption attitude and misconception. Moreover, income level has a positive relationship with consumption attitude and misconception. It indicates that increase in income level leads to increase in consumption attitude and misconception. Similarly, product attribute has a positive relationship with consumption attitude and misconception. It indicates that change in product attributes leads to change in consumption attitude and misconception.

Regression analysis

Having indicated the Kendall's Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it shows the regression results of need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level, and product attributes in consumption attitude and misconception on protein supplements among youths in Kathmandu valley.

Table 2

Estimated regression result of need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level and

product attributes towards consumption attitude and misconception on protein supplement in Kathmandu Valley

The results are based on 123 observations using linear regression model. The model is CAM = β_0+ β_1 NGNC+ β_2 KNP+ β_3 ET+ β_4 BA+ β_5 IL+ β_6 PA + ε where the dependent variable is CAM (Consumption attitude and misconception). The independent variables are NGNC (Need of good nutrition consumption), KNP (Knowledge on nutritional protein), ET (Exercise type), BA (Brand awareness), IL (Income level), and PA (Product attributes).

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		NGNC	KNP	ET	BA	IL	PA			
1	2.358 (8.928) **	0.403 (4.985) **						0.164	0.735	24.853
2	1.549 (5.483) **		0.589 (7.485) **					0.311	0.667	56.026
3	1.689 (5.793) **			0.540 (6.822) **				0.272	0.686	46.539
4	1.313 (3.639) **				0.626 (6.528) **			0.254	0.694	42.619
5	1.797 (4.132) **					0.487 (4.274) **		0.124	0.752	18.270
6	2.791 (7.930) **						0.232 (2.440) *	0.039	0.788	5.953
7	1.33 (4.426) **	0.172 (2.061) *	0.497 (5.550) **					0.329	0.658	30.888
8	0.874 (2.759) **	0.168 (2.095) *	0.317 (3.161) **	0.317 (3.434) **				0.384	0.631	26.376
9	0.685 (1.951)	0.162 (2.034) *	0.270 (2.524) *	0.247 (2.445) *	0.158 (1.244)			0.387	0.629	20.260
10	0.350 (0.089)	0.151 (1.886)	0.297 (2.754) **	0.229 (2.263) *	0.073 (0.528)	0.175 (1.533)		0.394	0.626	16.864
11	0.398 (0.954)	0.172 (2.027) *	0.285 (2.603) **	0.226 (2.220) *	0.089 (0.634)	0.213 (1.705)	0.072 (0.067)	0.392	0.627	14.096

Notes:

i. Figures in parenthesis are t-values.
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Consumption attitude and misconception is dependent variable.

Table 2 reveals that the beta coefficients for need of good nutrition consumption are positive with the consumption attitude and misconception on protein supplement. It indicates that need of good nutrition consumption has a positive impact on consumption attitude and misconception. This finding is similar to the findings of Kumar (2014). Likewise, the beta coefficients for knowledge on nutritional protein are positive with the consumption attitude and misconception on protein supplement. It indicates that knowledge on nutritional protein has a positive impact on consumption attitude and misconception on protein supplement. This finding is similar to the findings of Smith (2017). In addition, the beta coefficients for exercise type are positive with the consumption attitude and misconception on protein supplement. It indicates that exercise type has a positive impact on consumption attitude and misconception on protein supplement. This finding is similar to the finding of Verdijk *et al.* (2009). Further, the beta coefficients for brand awareness are

positive with consumption attitude and misconception on protein supplement. It indicates that brand awareness has a positive impact on the consumption attitude and misconception on protein supplement. This finding is similar to the finding of Karam and Saydam (2015). In addition, the beta coefficients for income level are positive with the consumption attitude and misconception on protein supplement. It indicates that income level has a positive impact on consumption attitude and misconception on protein supplement. This finding is similar to the finding of Williams (2002). The beta coefficients for product attributes are positive with the consumption attitude and misconception on protein supplement. It indicates that product attributes have positive impact on consumption attitude and misconception on protein supplement. This finding is similar to the finding of Bangsa *et al.* (2020).

4. Conclusion

Protein supplements are one of the most popular dietary supplements used by athletes, recreationally active adults, and soldiers striving to increase muscle mass, improve exercise recovery, and improve performance. Consumption attitude and misconception can measure the probability of a consumer to buy product, intensity of consumption, consumer's intention of regularity with the product, and clarify the myths that are ongoing regarding the product within consumers. Consumption and misconception indicate that consumers will follow their experience, preference, evaluate alternatives, and make decision. Consumption attitude is a behavior tendency of a consumer who is intended to consume a product.

This study attempts to examine the consumption attitude and misconception on protein supplements among the youths of Kathmandu Valley. The study is primarily based on primary source of data collected from the 123 respondents. This study hypothesizes that the consumption attitude and misconception on protein supplement depends on several factors such as need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level and product attributes.

The major conclusion of the study is that need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level and product attributes have positive impact on consumption and misconception on protein supplements. It indicates that higher the need of good nutrition consumption, knowledge on nutritional protein, exercise type, brand awareness, income level and product attributes, improves the consumption attitude and misconception on protein supplement. The study also concludes that brand awareness followed by knowledge on nutritional

protein are the most influencing factors that affect the consumption attitude and misconception on protein supplement among youths in Kathmandu Valley.

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