

Investigation of health care providers' knowledge of probiotics in KSA

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The human gut microbiota harbour trillions of microflora that can provide benefits such as protection against infection from other microbes, stimulating immune function⁽¹⁾. The microbial imbalance occurs when antibiotic used and consequently this lead to a decrease in the normal flora which may result in gastroenteritis and diarrheal^(2–3). Addressing this dysbiosis may introduce an external supplementation with beneficial micro-organisms in the form of probiotics. The term probiotic refers to “live microorganisms which when administered in adequate amounts confer a health benefit on the host”⁽⁴⁾. It has been proposed that probiotics have therapeutic effects for a wide range of medical conditions and helpful in maintaining a healthy and well-balanced gut flora. Establishing the health benefits of probiotics among health care providers (HCPs) can be positive for patients. It might contribute to a change in their dietary practices and reduce the risk of nutrition-related chronic disease. There is no data assessing knowledge and perceptions of probiotics by HCPs in KSA despite the increase in their availability to the consumers. Therefore, the aim of this study is to assess the knowledge and perceptions among HCPs in KSA.

A cross-sectional study was conducted on Health care providers (HCPs) in Riyadh. The data were collected using a semi structured online questionnaire related to the definition, health benefits and the perceptions about probiotics. Data were analysed using SPSS PC + version 21.0 statistical software (SPSS Inc., Chicago, IL). Mean, standard deviation, frequency counts and percentages were used to present the demographic features of the participating professionals. Analysis of variance and Tukey multiple comparison test were used to evaluate probiotics knowledge considering the demography of more two (2) sub-categories. Pearson's correlation coefficient was used to assess the possible relationship between probiotics knowledge scores and chosen demographic variables. Statistical results were considered to be significant at $p \leq 0.05$.

A total of 333 health professionals participated which was about 95.7% from the original number of submitted responses. Results of the study revealed the dominance of females (52.3%), aged between 30-44 years old (62.8%), mostly nurses (46.8%), and of professional experience at 10-19 years (37.5%). (85.3%) of the participants who were aware of the definitions of probiotics, 77.5% were having no concerns about the use of probiotics. As per perceptions about probiotics, it was viewed as not harmful to health (64.0%); beneficial to gut health and IBS (42.6% and 32.4% respectively); and lastly viewed as not beneficial to obesity (24.9%), allergies (28.5%), and heart diseases (36.3%). With $\alpha = .05$, there were significant differences on probiotics knowledge i.e., benefits to obesity ($p = .006$), allergy ($p = .036$), Crohn's disease ($p = .026$) & heart disease ($p = .002$) when grouped according to gender. And when grouped according to the profession (Physician Vs. Non-physician), statistical differences appeared also on knowledge on probiotics benefits to allergies and Crohn's disease both with $p = .033$. A great majority of respondents said no concerns on probiotics use (77.5%), and if they have it was minor concerns about safety (8.45%).

HCPs are familiar with probiotics definition, they consider the use of probiotics is unharmed. HCPs believe that probiotics are most beneficial to general digestion and Irritable bowel disease. However, regarding obesity, Crohn's disease, heart disease, allergies and Ulcreative colitties, HCPs believe that probiotics are ineffective. The results of this study provide nurses and other care providers with information about the knowledge, perception of probiotics, prioritise the importance of education to best provide recommendations to patients.

References

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