allows for the implementation of proximity interventions, such as nursing home care, resulting in an improvement of the health of individuals, families, and communities. The system mentioned above is the one implemented in health centres called S-Clinic and developed by the Serviços Partilhados do Ministério da Saúde (SPMS). However, this process presents some problems, such as the time spent collecting patient data; the introduction of the intervention data into the system, and the lack of a support structure for the data records extracted from the patient by the nurse.

Objective

Combining technological evolution, the importance of PHC and the difficulty of the nursing process at home, we propose the development of an application for mobile devices, with the objective of allowing nurses to import patient data through information, data records of the interventions carried out in an electronic format, which are then exported to the system.

Methods

In this way, the application will facilitate the work of the nurse because it replaces the records on paper, thus allowing a better collection and structuring of the data, as well as the increase of the efficiency of the work activity, and reduction of the time spent for the collection and introduction of data in S-Clinic. We had to study the essential contents of the nursing process at home and implemented in the system, in order to create a data structure with the closest resemblance to S-Clinic. Then, to obtain this information a meeting was held with nursing experts to provide their knowledge in this area.

Results

In this meeting, the contents considered essential for a domicile were addressed, and the key points were: nursing focus or diagnosis and nursing intervention. The data model was implemented in order to cover all the contents. Some security measures that could be implemented have also been discussed, in order to protect data. After the application development was complete, a meeting was held with some of the nursing experts present at the first meeting to gather requirements, in order to evaluate the system.

Conclusions

The feedback was very positive, encouraging the research team to continue this development because they see a good solution for the future of the PHC at the home environment.

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Keywords

Nursing, Health information system, Digital health, Innovation, Development.

P70

Construction of parenthood - role of the family nurse

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Background

The birth of the first child is presented as the most challenging responsibility facing the family, requiring the adaptation of their interactions with singular and holistic impact. The first six months emerge as a transient, predictable and irreversible milestone. The transition to parenting is marked by the changes and repercussions that drive the child's growth and development, predating and precipitating others in the family life cycle. Supporting families in transition is the competence of nurses, namely, their intervention in the field of family health nursing, in the training for the construction of parenting.

Objective

Understand how parents build their parenting model during the first semester of life of the first child. Analyse parents' expectations and constraints/difficulties in the transition to paternity. Explore identity figures and resources mobilized by parents in the transition to parenthood.

Methods

We developed a phenomenological study of qualitative nature, with a non-probabilistic sampling of convenience that includes 11 subjects, parents with the first child to complete six months of life between October and December 2016, enrolled in USF Rainha D. Tereza. We conducted semi-structured interviews, obtaining the narratives of the experiences and their deepest understanding of them. We complied with ethical procedures and submitted the information collected to analysis using WEBQDA Software.

Results

We highlight the experience of parenting in the desire to be a parent, and in the expectations created in pregnancy, contributing to the parental model. This is determined by factors such as the characteristics of the child, the characteristics and previous experiences of the parents, and the family dynamics. Parents face difficulties in providing care for the child and reconciling parental, marital and familial and social roles. Faced with these difficulties, parents use human, community and monetary resources. We highlight the community resource in support of health care, which is valued by parents. The family nurse, when identified and recognized, is described as an effective and accessible resource in adapting to parenting.

Conclusions

The results obtained by the research carried out allowed us to acknowledge the experience of the transition to parenthood of the parents interviewed and to affirm the role of the family nurse, in their capacity to build their own model of parenting, as well as contributing with knowledge to be valued in nursing interventions.

Keywords

Nursing, Family, Transition, Parenthood.

P71

Antioxidant activity of the garlic (Allium sativum L.) submitted to different technological processes

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Background

Garlic has become extensively investigated by its benefits for health. Some therapeutic activities are attributed to the garlic, namely, antioxidant, hepatoprotective, anticancer and antitumor properties, among others [1-3].

Methods

Therefore, the total phenolic content (TPC) and the total flavonoid content (TFC) have been determined, as well as the antioxidant

properties of extracts of the different forms of presentation/parts of the garlic existing in the market (bulb, in powder and in tablets/capsules), by the radical 2,2-diphenyl-1-picrylhydrazyl (DPPH•) method and by evaluation of the ferric reducing antioxidant power (FRAP). The scavenging capacity of the same extracts against reactive species (O_2^{-}•, H_2O_2, NO•) was also evaluated. Finally, the biological activity of the presentation forms of garlic existing in the market was compared with the one of the garlic peel, considered food waste, taking also into account some variables that can influence the properties of the bulb, that is, boiling and freezing.

Results

TPC was superior in the frozen chopped garlic sample, having the garlic tablets the lowest content. The cooked garlic presented an inferior value of TPC when comparing with the raw chopped bulb. These results indicate that cooking and freezing methods intervene directly with the total phenolic content, but in an opposite way. The extract of cooked garlic had the higher value of TFC, belonging the lowest tenor to garlic tablets. Radical DPPH• and FRAP methods allowed to verify that the cooked garlic extract evidenced a superior antioxidant activity. This result can be explained by cell wall rupture derived from heating, provoking antioxidant substance release, new and/or stronger antioxidant substance formation or oxidant enzymes inhibition [4]. The frozen chopped garlic extract presented the highest scavenging capacity of the three studied reactive species. In general, the higher the total phenolic content, the greater the capacity of inhibition of reactive species NO•, O_2^{-}• and H_2O_2.

Conclusions

This study has showed that the diverse forms of presentation/parts of the garlic possess high bioactive compounds content, and consequently antioxidant activity, presenting health benefits.

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Keywords

Allium sativum L., Bioactive compounds, Antioxidant activity, Reactive species.

P72

Influence of gamma irradiation in the antioxidant potential of pumpkin seeds and mung beans

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Food conservation is a challenge for the food industry. The high respiration rate, the lack of physical protection to avoid water loss and the changes due to microbial attack are often associated with loss of food quality, contributing to deterioration through browning, weight loss and texture changes [1]. Furthermore, bacteria, moulds, enzymatic activity (mainly polyphenol oxidase) and biochemical changes can cause spoilage during storage [2]. The use of ionizing energy for preservation has been widely studied by the food industry. However, studies evaluating the effects of ionizing radiation are mostly available in cultivated species, being scarce the reports on wild species and food waste, considered add-value foods. In this regard, food technology is making progress towards increasing food preservation and contributing to a reduction of the incidence of food-related diseases. Previous studies assessing the potential of gamma irradiation as a suitable technique to increase natural products shelf-life were focused in nutritional and chemical parameters, including bioactive compounds and their antioxidant activity [3]. Many natural compounds found in edible food wastes (seeds) or grains (beans) present antioxidant activity. Among the most important natural antioxidants are phenolic compounds (flavonoids, phenolic acids and tannins), nitrogenous compounds (alkaloids, amino acids, peptides, amines and chlorophyll byproducts), carotenoids, tocopherols and ascorbic acid.
In the present work, the effects of gamma radiation dose (0, 0.5, 1.0, 1.5 and 5.0 kGy) on the chemical composition (total phenolics and total flavonoids) of pumpkin seeds and mung beans were evaluated. The antioxidant activity was studied using DPPH• and FRAP assays. It was observed a slight increase in the content of bioactive compounds, as well as in antioxidant activity, with irradiation doses below 1.5 kGy. Final results showed that irradiation may be a viable technique to guarantee the content of bioactive compounds, as well as their biological properties, including antioxidant activity.

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Keywords

Food conservation, Gamma irradiation, Pumpkin seeds, Mung beans, Antioxidants.

P73

The effects of swimming and swimming complemented with water walking on spirometry values

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Background

Spirometry is a standard pulmonary function test that measures how an individual inhales or exhales volumes of air as a function of time. It is the most important and most frequently performed pulmonary function testing procedure, having become indispensable for the prevention, diagnosis and evaluation of various respiratory impairments. However, there have been only a few studies addressing the effect of physical activity on pulmonary function test results and investigating the association between body composition and respiratory parameters in sports activities [1-3].

Objective

The objective of this study was to verify if there are differences in spirometry values in children aged between 6 and 12 years who practice swimming complemented with water walking at the end of each session and those who only practice swimming.

Methods

In this study 28 subjects (mean age, 7.68 ± 1.16 years) participated and were divided into two groups: swimming group (SG) (N=9) and