

CONSUMPTION OF HONEY IN PORTUGAL: CONSUMERS' ATTITUDES, PERCEPTIONS AND TRENDS

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INTRODUCTION

Consumers' attitudes about reveal important information about the production and supply chain of food and the commercialisation process (Unnevehr et al., 2010). To fully understand a consumption market, it is important to study the symbolic representations of consumption habits (Bekker et al., 2017). The consumer perceives consumption accordingly to social norms and values, and consumption habits cannot be analyzed as individual phenomena. Choices are under the influence of norms, values, taboos, permissions, prohibitions, and beliefs (Andorfer & Liebe, 2013). The consumers' attitudes have been considered important determinants of their behaviour. The **Ajzen's Planned Behaviour Theory (APBT)** (Ajzen, 1991) is based in the presumption that people behave in a sensible way, consider the information available, and consider the implications of their actions. The theory postulates that a person's interest to perform or not a certain behaviour is a direct function of individually and socially related variables. The individual component is based in the individual attitude or mood to react favourably or unfavourably to an object, individual, institution, or event (Kim and Hunter, 1993). The social component includes the subjective norms determined by the perception of the social pressures acting on the individual, to perform or not a certain behaviour (Ajzen 1991).

Apiculture in Portugal

Apiculture in Portugal is an activity traditionally connected to farming and managed as an income complement. There are, however, beekeepers with the main income resulting from apiculture (GPP, 2019). The activity cannot be analysed based on a direct cost-benefit relationship, as it embraces externalities, such as pollination, that overtake the production value. The number of beekeepers, apiaries and hives has been increasing in Portugal. It is however noticed that the increase in apiaries and hives was twice the number of beekeepers, indicating growth in dimension, reflecting the EU financial programmes supporting apiculture (GPP, 2019).

There is a concentration of apiaries in the North and Centre of the country (66% of the beekeepers and 55% of the apiaries). The South has less beekeepers, however, the larger operations can be found here (averaging 158 hives and 11.4 apiaries per beekeeper) (GPP, 2019).

The non-professionals represented 90% of the beekeepers in Portugal in 2018 (96.6% in 2010) but own only 41% of the hives. The professionals represent 10% of the beekeepers and 59% of the hives, averaging 363 hives per beekeeper (GPP, 2019).

AIM and METHODS

The aim of this study was to contribute to the understanding of the honey consumer in Portugal, and his attitudes towards the product, consumption, and production, using the APBT model. The ultimate goal is to provide directions for developing marketing strategies.

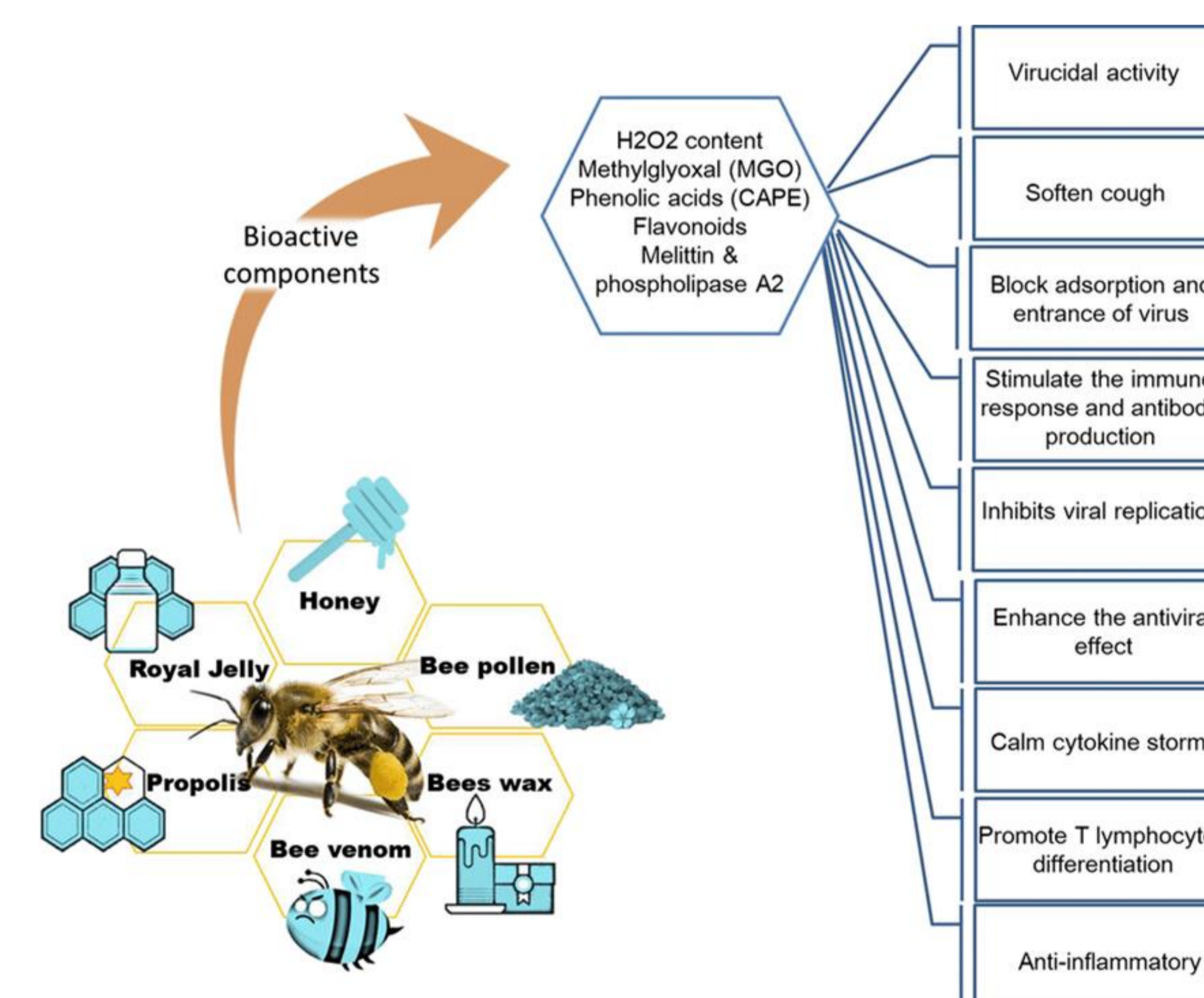
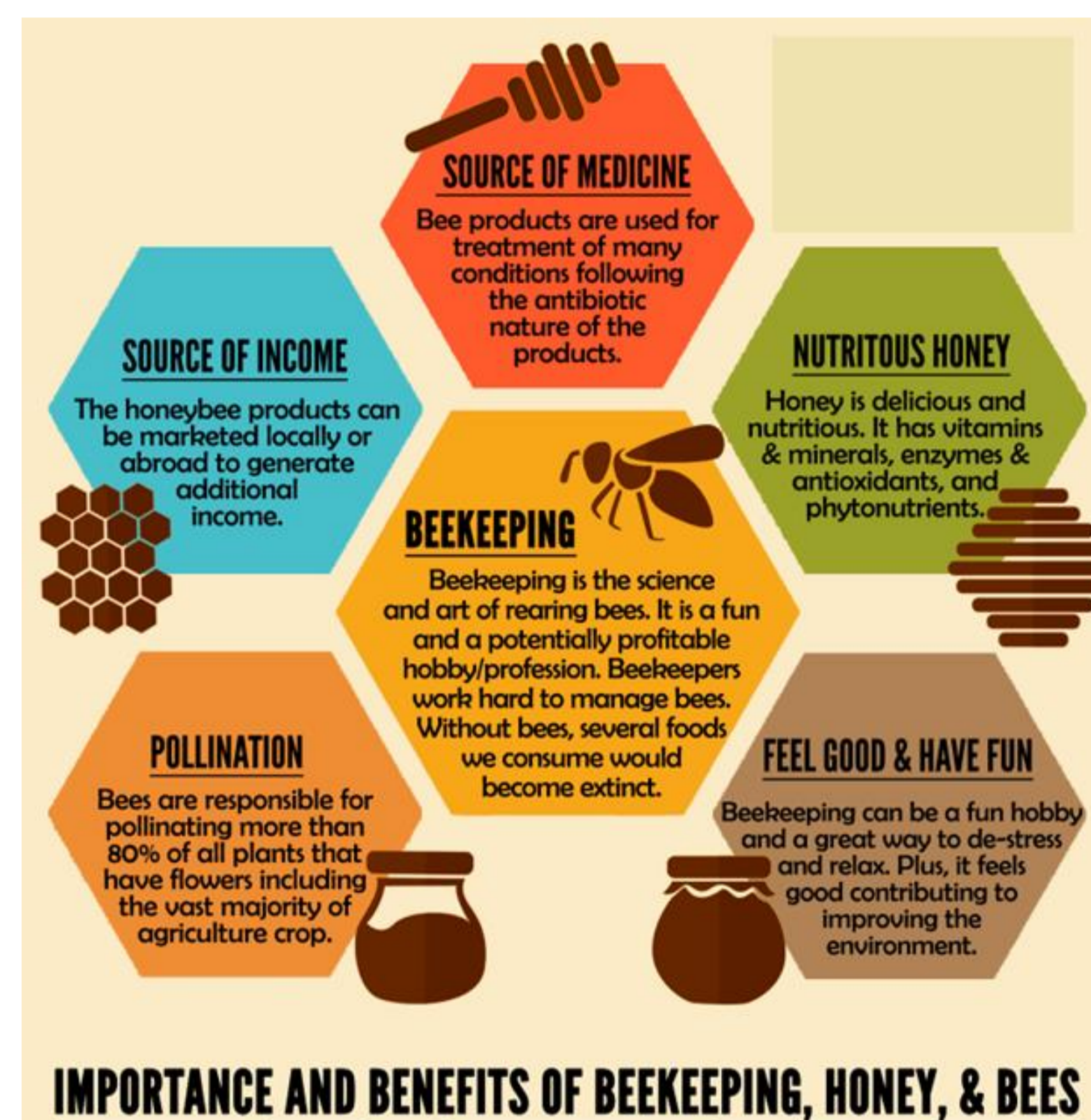
Data were collected through questionnaires, between February and July 2022, to retrieve quantitative and qualitative data. These included demographic, consumption pattern, and behavioural pattern variables collected in a Likert scale.

A sample of 784 individuals was used covering the 21 Portuguese districts. Inferential statistics include Spearman correlations between ordinal and continuous variables and chi-squared tests of independency applied to contingency tables for nominal variables.

RESULTS ANALYSIS

Socio-economic variables

Rivera (2005) argued that the socio-economic variables with higher influence in honey consumption are gender, as women are still more important than men in household food purchasing. Housewives are the main responsible for the detection of household needs, brand choice, and the decision of when and where to buy. Accordingly, to Pérez et al., (2001) as the housewife grows older, increases honey purchasing frequency. The same result was obtained in our study, as a positive correlation was found between age and frequency of purchasing ($r = 0.196$; $P < 0.001$). The education level of the individuals in the sample shows 55% of the individuals having up to high school, 42% attending College or having already their first degree, and 3% having or attending postgraduation studies. The professions of the sampled individuals are very diversified ranging from the 1st to the 3rd sector and included unemployed and students.



Consumption pattern variables

Most of the interviewees (94%) are consumers of honey. A significant difference was found for gender consumption frequency ($P < 0.01$). Men consume honey more frequently than women, which agrees with the findings of authors such as Kopała et al. (2019). Consumption occurs mainly in the Winter (64%) and Autumn (17%) with 12% in Spring and a residual (7%) in the Summer, which tally the results of Ribeiro et al. (2010). Most of the honey is consumed pure, but also in replacement of sugar, mixed with other foodstuff or as medicine. National honey is preferred by 95% of the interviewees, 10.3% consume imported honey, and 4.7% do not care about the origin. We can therefore infer that the majority of imported honey is for the food industry. Imported honey especially from China has competitive prices. In relation to other beehive products, 52% of the interviewees does not consume and 10% ignores it. Effectively the other bee productions (pollen, propolis, royal jelly, beeswax and apitoxin) are extremely important to complement the beekeeping income (Semkiw, and Skubida, 2021). As such there is also a marketing gap, in relation to these products, to be fulfilled.

DISCUSSION

The beekeeping activity is not, apparently, completely understood by the interviewees. Overall, 45% of the interviewees show a neutral position in relation to this set of questions. It is however noticed that a significant percentage of the interviewees (52%) have some knowledge about other beehive production apart from honey. The interviewees show some ignorance in relation to the role that beekeeping has in pollination (53% neutral), however those recognising it comes upon those ignoring it (39% and 8% respectively).

Lack of opinion is also felt in relation to the beekeeping economy (47% of the interviewees with neutral position), but those believing in the economic struggling (36%) leave behind those that do not (8%). The beekeeping activity has externalities of enormous importance for the ecosystems, namely in pollination, raising marketing potential for honey (Stampa and Zander, 2022).

In relation to the production of beehive products, there is a mixed tendency with agreement and disagreement that beekeepers produce honey-related products only. In relation to the benefits for health and well-being there is a strong perception (84%) favouring honey consumption, which raises marketing potential (Zanchini et al., 2022).

About 53% of the interviewees believe that Portuguese honey is better than others, 28% are neutral, and only 19% disagree. A huge 89% portion of the interviewees thinks it is important to consume only Portuguese honey to support the local economy, and 63% believe that most of the time the consumer buys honey unknowing its origin, in agreement with Fonte et al. (2017). Garcia (2018) reports that countries such as China do not have their production standards aligned with the Codex Alimentarius, as countries in EU have, opening doors for adulteration. Adulterations of Chinese honey were reported by Ritten et al. (2019), and Wang et al. (2022) reported that antibiotic residues were found in 84% of the honey in the Chinese market.

Portuguese honey has a good reputation among the consumers in this study and is preferred to imported honey. However, it is evident that a marketing gap exists, and if properly filled, could increase sales. It is important to develop a marketing strategy to promote differentiated products based on specific attributes, such as floral characteristics, organic production, and PDO. This is important in the promotion of high-quality products that should not enter in direct competition with lower-quality imported honey. There is a deficit of honey production in the EU to be explored. The "nostalgia market" of the large Portuguese expatriate community. The beekeeper associations are important for the protection of regional high-quality products. The externalities of beekeeping may also be used in marketing with advantage.

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