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Public perception of generic medicines in Malta

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Abstract

Objectives To assess the perception of generic medicines among the general public in Malta.

Methods A self-administered questionnaire was developed to assess knowledge, attitudes and use of generic medicines. The questionnaire was disseminated to a sample of the public recruited by convenience sampling in five localities in Malta. Descriptive statistics were undertaken.

Key findings A total of 228 participants completed the questionnaire; 54% were female, 42% were ≥60 years old, and 37% had up to secondary education level. Sixty-one per cent of the participants were aware of the correct definition of a generic medicine, and 55% stated that they had previously used generic medicines. Twenty per cent of the participants had never used generic medicines since they perceived them to be inferior in quality or less effective compared to their originator counterparts. Fifty-four per cent of the participants would switch to a generic medicine if the originator product was out-of-stock and 38% would pay between 1% and 20% less for a generic medicine compared to the originator product.

Conclusions Participants in this study exhibited a positive overall perception regarding generic medicines, demonstrating improvement in perception from a previous local study. The majority of participants were knowledgeable about generic medicines, had previously used generic medicines and would switch to a generic medicine if the originator product was not in stock.

Keywords cost of medicines; generic medicines; Malta; public perception

Introduction

The use of generic medicines has increased considerably over the past few decades in both developed and developing countries[1]; however, generic medicines are still being used less compared to branded medications.[2] Patients may have negative views about generics and perceive them to be inferior in quality and inappropriate for treating more serious conditions compared to branded counterparts.[3] Pharmacists and physicians can contribute to inform patients on the equivalence of generic and originator medicines in terms of efficacy and quality.[2]

In Malta, a study in 2012 concluded that the generics market was still in its infancy and that the Maltese population lacked awareness.[4] The regulatory perspective indicates that over recent years, concerns with regard to generic medicines changed.[5] The research question posed for this study was how has the perception of generic medicines by the Maltese public changed? The aim was to assess the evolvement of the perception of generic medicines among the general public in Malta.

Methods

The study was registered with the Faculty of Medicine and Surgery Research Ethics Committee of the University of Malta.

This descriptive, cross-sectional study involved development of a self-administered questionnaire based on literature[1–4,6–10] to assess public perception of generic medicines.

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The questionnaire was reviewed by four pharmacists and four lay persons, and face validity was achieved. The questionnaire consists of two sections to collect participant demographic information and six multiple-choice questions in total to assess knowledge and use of generic medicines. A pilot study with 20 participants selected by convenience sampling was carried out. No changes to the questionnaire were made after the pilot study.

The questionnaire was distributed by pharmacy students at a public marketplace in four localities in Malta and at the University campus over a five-day period. The marketplaces were located in the Southern Harbour, Northern Harbour and South Eastern districts, and the University campus is located in the Northern Harbour area. Participants were invited to participate by convenience sampling on a voluntary basis.

Data analysis was carried out using SPSS version 24. Descriptive statistics were calculated, and the chi-square test was used to assess the association of each question with age, gender and level of education (0.05 level of significance adopted).

Results

A total of 228 participants completed the questionnaire. Participant demographics are shown in Table 1.

The majority of the participants, 61% (n = 139), were familiar with the term generic medicine and selected the correct definition 'cheaper version of the originator/reference product with the same active ingredient/s and action/s' (Table 2). The association between knowledge of the definition and age was statistically significant ($X^2(4) = 11.213$, $P = 0.024$), with the '18–39' and '40–59'-years age groups being more knowledgeable about the definition compared to participants ≥60 years. No statistically significant difference ($P > 0.05$) was observed with gender and level of education.

The majority of the participants, 55% (n = 125), stated that they had previously used generic medicines. The main reason for using generic medicines was that they were provided free-of-charge through the National Health Service (NHS) (50%, n = 63). A significant association was observed with age ($X^2(6) = 31.60$, $P < 0.001$) and level of education ($X^2(6) = 28.059$, $P = 0.001$). A higher proportion of participants ≥60 years or with only primary education level stated that they use generic medicines since they are provided free-of-charge through the NHS.

Reasons for not using generic medicines included the belief that generic medicines are of inferior quality (42%, n = 19) and of lower effectiveness (41%, n = 19) compared to their originator counterparts.

When asked how much less they would be willing to pay for a generic medicine compared to the originator counterpart, 38% (n = 87) of the participants would be willing to pay between 1 and 20% less. A significant association was observed with age ($X^2(6) = 36.59$, $P < 0.001$) and level of education ($X^2(9) = 29.527$, $P = 0.001$), with participants ≥60 years and with primary and secondary education level being most willing to pay at least 40% less than the originator product.

The majority of the participants, 54% (n = 123), stated that they would switch to a generic alternative if the originator was out-of-stock. A significant association was observed ($X^2(4) = 16.430$, $P = 0.002$) with age, with participants aged '18–39' and '40–59' years being more willing to switch to a generic alternative, and participants ≥60 years more likely to check for any remaining originator stock or remain without the medication until the originator is back in stock.

Table 1 Participant demographics (N = 228)

Demographic	Category	Frequency (n)	Percentage (%)
Age (years)	18–39	80	35
	40–59	50	22
	60+	96	42
	Undisclosed	2	1
Gender	Female	123	54
	Male	100	44
	Undisclosed	5	2
Level of education	Primary	50	22
	Secondary	84	37
	Postsecondary	34	15
	Graduate	53	23
	Undisclosed	7	3

Discussion

The majority of participants were aware of generic medicines and had a positive overall perception regarding their use. Improvement in the perception of generic medicines compared to the previous local study was observed.[4]

Knowledge about generic medicines in other studies is reported to be variable[3,7-10]. Negative perceptions towards generic medicines may be associated with lack of education and information provided to consumers.[3] This was not observed in the elderly in Malta who, however, were using generics for the main reason that the product was made available on the NHS scheme for chronic medications. The NHS model adopted in Malta is relatively unique whereby entitled patients receive medicinal products procured by Government Pharmaceutical Services and which are distributed through private community pharmacies. Younger participants and those with a higher education level stated that they consider use of generic medicines following recommendation by a healthcare professional or as influenced by the media. The reasons for using generic medicines in these participants are because they are cheaper and due to confidence that generic medicines are identical in effectiveness, quality and safety to the originator product.

The difference observed between age groups and education levels with respect to the price they are willing to pay for a generic compared to the originator product may be attributed to financial limitations of elderly individuals and those with lower education levels. Elderly participants were also less willing to switch to a generic alternative if an originator is out-of-stock.

Table 2 Participant responses

Question	Response	Frequency (*n*)	Percentage (%)
What is a generic medicine? (*N* = 228)	More expensive version of the brand-name product	18	8
	Cheaper version of the brand-name/reference product with *different* active ingredient/s and action/s	71	31
	Cheaper version of the brand-name product with the *same* active ingredient/s and action/s	139	61
Have you ever used a generic medicine? (*N* = 228)	Yes	125	55
	No	46	20
	Don't know	57	25
If yes, what are the reasons for using a generic medicine? (*n* = 180)	Confident that it is identical in effectiveness and safety to the brand-name product	35	28
	Cheaper	38	30
	Recommended (by pharmacist, physician, other health care professional, media, etc.)	44	35
	Given via the free medicines (POYC) scheme	63	50
If no, what are the reasons for not using a generic medicine? (*n* = 46)	More side effects compared to the brand-name product	8	17
	Less effective compared to the brand-name product	19	41
	Inferior quality compared to the brand-name product	19	42
What would you do if a particular brand-name medicine is out-of-stock? (*N* = 228)	Stay without the medication until the brand-name product is back in stock	14	6
	Go round various community pharmacies to check for any remaining stock	91	40
	Switch to a generic medicine	123	54
How much less are you willing to pay for a generic medicine compared to the brand-name product? (*N* = 228)	1–20%	87	38
	21–30%	41	18
	31–40%	34	15
	>40%	66	29

Limitations

Reliability testing of the questionnaire was not undertaken. The method for participant recruitment was by convenience sampling within a 5-day period from the identified public areas. The sample population of 228 is small in relation to the total population of Malta (estimated total population reported as 493 559 at the end of 2018 according to the Malta National Statistics Office), and this limits the generalisation of the findings.

Level of education was a parameter that was tested, which may reflect impact of occupation. Other parameters that may affect use of generic medicines namely health-related parameters, such as number and significance of comorbidities and number of medicines per day, were not assessed in this study. Further research with a larger cohort and exploring the impact of these parameters sheds light on the multifactorial reasoning behind acceptance of generic medicines.

Conclusions

Participants in this study exhibited a positive overall perception regarding generic medicines, demonstrating improvement in perception from a previous local study. Participants were knowledgeable on the correct definition of a generic medicine, have previously used a generic medicine and would switch to a generic medicine if the originator product was not in stock.

Declarations

Conflict of interest

The Author(s) declare(s) that they have no conflicts of interest to disclose.

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Authors' contributions

Pharmacists Nicolette Sammut Bartolo, Francesca Wirth, Maresca Attard Pizzuto, Janis Vella Szijj, Anthony Serracino-Inglott and Lilian M Azzopardi designed the study and together with Master of Pharmacy student Louella Ignas contributed to the final draft of the article. Francesca Wirth,

Nicolette Sammut Bartolo and statistician Liberato Camilleri contributed in the analysis of data. All authors state that they had complete access to the study data that support the publication.

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