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Awareness of the potential risks of printed pharmaceutical advertisements

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This article investigates consumer perceptions in the Nelson Mandela Metropole regarding printed advertisements of pharmaceutical products in order to identify potential risks. A focus group discussed various topics regarding pharmaceutical advertising. Thematic analysis was used as investigative tool. It was established that these advertisements evoke various desires, often contain irrelevant and false information that can lead to misinterpretation, and also often contain unintelligible jargon. Participants believed that photographs and pictures enhance the attractiveness and credibility of products. It was concluded that printed pharmaceutical advertisements present potential risks if misunderstood and/or misinterpreted.

Bedag op die potensiele risiko's van gedrukte farmaseutiese advertensies

Hierdie artikel ondersoek verbruikers in die Nelson Mandela Metropol se persepsies teens gedrukte advertensies van farmaseutiese produkte ten einde potensiele risiko's te identifiseer. 'n Fokusgroep het verskeie onderwerpe ten opsigte van farmaseutiese advertensies bespreek. Tematiese analise is gebruik in die ondersoek. Daar is vasgestel dat farmaseutiese advertensies hunkeringe kan aanwakker, onnodige en vals inligting dikwels tot waninterpretasie kan lei, en soms onverstaanbare taal bevat. Verder word daar geglo dat foto's en prente die aantreklikheid en geloofwaardigheid kan verbeter. Die gevolgtrekking was dat gedrukte farmaseutiese advertensies potensiele risiko's vir verbruikers kan inhou.

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Advertising can be traced back 3 000 years ago to ancient Babylonia and China (Landa 2004: 2). In those early times commercial messages were shouted out by criers who stood on street corners or at ancient sport contests (Wells *et al* 1995: 23).¹ Currently, advertisements are commonly used and billions of people are exposed to them. Pharmaceutical advertisements have become part and parcel of daily living. For example, a newly released prescription-only analgesic (painkiller) can be viewed in television advertisements or in magazines in some countries such as the US or, in countries where such advertisements are prohibited, suggestive advertisements about such products are frequently used.

Many researchers have indicated the negative impact of direct-to-consumer advertisements on consumers and health care workers, and many arguments have been raised against direct-to-consumer advertisements. The disadvantages of the latter include the trivialisation of prescription medicines which may in effect have harmful consequences, lack objective information, and often downplay the possible risks of pharmaceutical products. Researchers have also stated that direct-to-consumer advertisements do not show a net benefit to the public health system (Abood & Brushwood 1994: 187, Ministry of Health of New Zealand 2006, Toop & Mangin 2006: 30).

In addition, a literature review indicated that much of the research conducted thus far has not investigated the psychological risks or dangers that pharmaceutical advertisements may pose to consumers. It is imperative that pharmacists and other health care workers be aware of the risks posed by these advertisements, as well as being able to educate consumers regarding these risks. Literature has revealed that advertisements employ two main psychological tools to produce the desired effect, namely persuasion and emotion (Clow & Baack 2005: 213, Tellis 2004: 203). Clow & Baack (2005: 213) state that the most common goal of an advertisement is to persuade. The function of persuasion is therefore to change the opinion, behaviour, or attitude of consumers when exposed to advertisements (Tellis 2004:

1 The authors would like to acknowledge those who took part in the focus group, the facilitator, and the Despatch Dienssentrum for providing the venue.

203). Persuasion is also concerned with emotion which is often employed as a powerful convincing marketing tool in advertisements (Wells *et al* 1995: 23). Researchers such as Raven (2004: 9) have proven that emotion plays a role in pharmaceutical advertisements. He suggested that various emotional factors in direct-to-consumer advertisements, for example, illustrating the fear of death, vulnerability, self-consciousness, shame, and responsibility were employed to persuade consumers.

When consumers lack the ability to process a specific advertisement's message, a consumer will be more responsive to cues associated with the information provided by the advertisement (Tellis 2004: 203, Belch & Belch 2004: 779). Persuasive and emotional cues will thus be employed to assist the consumer in forming a conclusion regarding the advertisement (Tellis 2004: 203). These cues will mostly be positive to ensure that consumers do not reject such an advertisement as is the case with negative cues (Belch & Belch 2004: 779).

By means of a decoding process, Williamson (2005: 180), a world-renowned semiotician, identified that advertisements "cook" nature by illustrating, for example, the transformation of raw materials into the final product. He used an advertisement for a vitamin supplement as an example. The peel of an orange is seen with an orange-coloured vitamin tablet just below it (Williamson 2005: 180). In this case, it can be argued that consumers are in fact persuaded into believing that this vitamin tablet is just as effective as the fruit. This scenario clearly shows that a pictorial component is used to persuade consumers into developing a positive perception concerning the vitamin advertisement.

Floch (2001: 225), another world-renowned semiotician, illustrated how in an advertisement for an antidepressant directed at senior citizens emotion can be employed as persuasive technique. He illustrated this by using a visual category, layout in conjunction versus layout in disjunction. The advertisement illustrated, in the top half, a grandmother who is not part of the family (disjunction) and in the bottom, the entire family together. The name of the medication appears between these two opposite photographs. This advertisement illustrates how emotion, in the form of family separation, is used to improve its persuasive value (Floch 2001: 225).

This article discusses the results of a focus group that formed part of a larger study conducted to explore the influence of printed pharmaceutical advertisements on consumers. By investigating the results of the focus group, awareness of the risks pharmaceutical advertisements may pose to consumers can be created among health care workers. The end result will be to emphasise that consumers should use health care workers, such as community pharmacists, as the primary source of information when seeking credible health-related advice.

1. Objective

This qualitative study included activities such as a focus group, consumer survey, and more in-depth qualitative techniques, for example, the decoding of pharmaceutical advertisements, semiotic applications, and colour psychology. The study also focused on the forensic aspects to which pharmaceutical advertisements have to adhere in South Africa. This article aims to reflect on the potential risks of printed pharmaceutical advertisements based on the perceptions of consumers in the Nelson Mandela Metropole. The objective is therefore to identify consumers' interpretation of printed pharmaceutical advertisements and whether possible misinterpretations and/or misunderstandings can occur.

2. Methodology

A qualitative and explorative technique was employed to determine the perceptions of consumers regarding pharmaceutical advertisements. A focus group was conducted to identify how a sample of consumers interpret and perceive pharmaceutical advertisements. This allowed for the identification of specific themes that could be explored in more detail. A decision was taken to conduct only one focus group. Its purpose was to obtain information for a questionnaire for the consumer survey.

2.1 Method and sampling

A detailed plan was developed to outline the procedures followed in organising the focus group. Specific procedures listed included

determining the size of the focus group, finding the appropriate venue, and setting a proposed budget to cover the expenses of the focus group. The plan was peer reviewed to ensure its effectiveness.

The focus group was conducted within the Nelson Mandela Metro-pole, Eastern Cape, South Africa. The focus group consisted of consumers within the Nelson Mandela Metropole who were selected by means of a convenience sample. A diverse group of six participants (n=6) from different socio-economic backgrounds were selected to participate. Green & Thorogood (2005: 108) state that a focus group is a small group of between six to 12 participants. Initially eight participants were selected to participate but two cancelled at the start of the focus group. Therefore, the sample consisted of a group of six participants (n=6) from different socio-economic backgrounds. Table 1 identifies the demographics of the six participants.

A convenient time in the evening was selected to conduct the focus group discussion as most of the participants were working during the day. Personalised invitations were sent to each participant a week prior to the date of the focus group discussion. Each invitation stated the starting time, date, and location as well as a verbal and written overview of the study. Two days after delivering the invitations, each participant was contacted, with their permission, to ensure their participation. Cellular phone reminders were sent in the evening prior to participation.

Table 1: Demographic details of the six focus group participants

Participant	Age (in years)	Gender	Occupation
1	20	Female	Student
2	24	Male	Accountant
3	24	Female	Teacher
4	25	Male	Chemical engineer
5	26	Male	Leather technologist
6	33	Female	Medical representative

The focus group was led by a facilitator who established a relaxed atmosphere, listened actively and allowed participants to participate. A Master's degree student in Psychology, who had been trained in

group processes, and with no pharmaco-legal knowledge, was selected to act as facilitator. The facilitator was provided with the necessary verbal information regarding the study. The researcher acted as assistant to the facilitator by helping with the recording of the discussion.

A focus group protocol was developed to outline the discussion in order to guide the facilitator in conducting the focus group. The protocol consisted of two activities, an introduction and two group tasks. During the introduction participants were welcomed and reminded of the activities to be conducted and given an overview of the study. An ice-breaker was also used to allow participants to become acquainted. The protocol was provided to the facilitator a week prior to the study to allow for familiarisation with the form of the focus group.

Group task one consisted of the following open-ended question: What do you think of advertisements in print form (in other words, advertisements found in, for example, magazines and newspapers)?

Group task two consisted of four prompts that were used to discuss various topics regarding pharmaceutical advertising. The four prompts were: Do you think pharmaceutical advertisements play on consumers' emotions? Do you think pharmaceutical advertisements mislead consumers? Are pharmaceutical advertisements often difficult to understand? Do colour and pictures attract your attention when looking at advertisements?

2.2 Method of data collection and analysis

The discussion was recorded by means of a digital voice recorder. A second recorder was used as backup to ensure that the discussion was recorded. Each recorder was tested beforehand by the assistant to ensure that a good quality recording was made. The recorded data were loaded on an appropriate file and copies thereof were made immediately after the discussion.

Data obtained were transcribed *verbatim* within 24 hours after the focus group. Thematic analysis was conducted by mirroring a similar technique as Tesch's seven steps of descriptive analysis (University of Texas 2007). In this instance, two steps, initial coding and focused coding, were applied to conduct the thematic analysis. With

initial coding, each response or sentence thereof appearing on the transcript was read and the question “What was it about?” was then asked. Themes were identified and written in the right-hand margin of each transcribed page (University of Texas 2007).

This was followed by focused coding. All the themes that emerged were pooled together and those with similar concepts were grouped together to form larger categories (University of Texas 2007). Thematic headings were then selected for each of these categories. Those themes that could not be grouped together within a larger category received no thematic heading. These steps were applied to each group task. Each thematic heading or theme was discussed by means of descriptive analysis. Quoted excerpts from the raw data were used to support the analysis of each group task.

3. Rigour

Rigour in the thematic analysis was established by applying the good practice guidelines of Green & Thorogood (2005: 262). This is similar to Lincoln’s and Guba’s criteria set in 1985 to ensure trustworthiness in qualitative research (Flick 1999: 293, Green & Thorogood 2005: 262). Similarly, transparency, validity, reliability, and reflexivity were ensured (cf Table 2).

4. Ethical considerations

Ethical approval for the study was obtained from the Faculty of Health Sciences’ Research, Technology and Innovation Committee of the Nelson Mandela Metropolitan University. Ethical measures were adhered to in all respects. Each of the six participants was provided with a preamble providing a brief overview of the study. Informed consent was obtained by means of a consent form which also covered all the activities to be conducted in the focus group. Participants were informed, before starting the discussion, that participation was voluntary.

Table 2: Criteria to ensure rigour in thematic analysis and the activities undertaken to achieve these in the study

Criteria	Activities
Transparency	<p>Complete reference was provided to:</p> <ul style="list-style-type: none"> • participant selection; • collection and recording of raw data; • protocol followed during discussion, and • steps followed in conducting thematic analysis.
Validity	<ul style="list-style-type: none"> • Inclusion of the focus group protocol followed by the facilitator to allow the reader to judge the interpretations. • A validity check was conducted in which a focus group participant was randomly selected and provided with the researcher's interpretation to determine whether this was a true reflection.
Reliability	<ul style="list-style-type: none"> • The facilitator was provided with a copy of the transcripts to comment on their accuracy. • Procedures followed during thematic analysis were discussed with colleagues and with the supervisors of the study.
Comparison	<ul style="list-style-type: none"> • Findings of the thematic analysis were compared with research conducted in the fields of pharmaceutical advertising and advertising in general.
Reflexivity	<ul style="list-style-type: none"> • Explicit account of all the steps taken during the data production and analysis was provided to ensure methodological openness. • Differentiation was made between the role of the researcher and the facilitator in the data-production process.

5. Results

5.1 Group task one

An introductory question about their opinions regarding any form of advertisement was posed to the participants. They felt that the image of the advertised product plays a role and that there is a definite link between its image and its cost. The point was also raised that an advertisement must be striking, thereby attracting consumers' attention. In addition, it was thought that an advertisement should be useful and therefore provide the necessary instructions or directions.

5.2 Group task two

In group task two four prompts were used to assist in the discussion of the following topics: the emotional impact, misleading nature, comprehensibility of pharmaceutical advertisements, as well as the aesthetics employed. Table 3 identifies the thematic headings, where applicable, and their themes for each of these topics discussed. Where themes could not be grouped together, no thematic heading was selected.

Table 3: Thematic headings and themes identified in group task two

Topics	Thematic headings	Themes
Emotional advertising	Emotional impact	Attention
		Desperation and death
Misleading advertisements		Irrelevant and false issues
Comprehension of pharmaceutical advertisements	Understanding pharmaceutical advertisements	Degree of understanding
		Information provided
Aesthetics	Appeal	Attraction
		Comprehensibility

Each of the themes identified will now be discussed.

5.2.1 Emotional advertising

- *Emotional impact*

Participants agreed that pharmaceutical advertisements can have an impact on the emotions of consumers, especially when suffering from chronic diseases such as diabetes and hypertension. Two themes emerged from the discussion of this topic, namely attention and desperation and death.

Participants believed that the aim of pharmaceutical advertisements is to attract consumers' attention. It was mentioned that humour can be effectively employed to attract attention. The belief was that humour has the ability to immediately and easily attract a consumer's attention.

With respect to attracting consumers' attention, the issue of having the desire to mirror what is portrayed in an advertisement can also have an emotional impact on consumers. The example of the advertising of slimming and muscle-gaining products was used. A male participant stated: "If you want to look like that person on the cover or in the ad [...] it can influence you [...] something like that has to stick [...] I want to look like that".

With the second theme, desperation and death, participants agreed that people in despair, especially those suffering from chronic illnesses or those who are dying, will be more emotionally affected by pharmaceutical advertisements targeted at them. A female participant agreed by saying: "If you want to be healthy again you will pay anything [...] You'll believe anything". One of the male participants agreed: "the real problem is [...] he is gonna die pretty soon. So, he will do anything to live a bit longer". Another female participant agreed with these opinions, adding: "Fear of death and losing everything will make you do anything".

Another important issue raised was that vulnerable consumers can often be faced with pharmaceutical advertisements that contain false and misleading claims. One of the male participants felt that economics plays a role in why advertisers direct advertisements at vulnerable people. His reason was: "They want to make money [...] what are they gonna do? If I have Aids or you have cancer...they will tell you: 'No, but it's curing it'". A female participant also argued that many of the people exposed to such advertisements are often uneducated and cannot differentiate between what is true and what is false. She stated: "... there might be millions of people out there who still don't know that Aids isn't curable". She argued that this would mislead these vulnerable people: "...they will fall for everything and anything that you tell them [...] it plays on their emotions".

- *Misleading advertisements*

The participants believed that pharmaceutical advertisements have the ability to mislead consumers. The theme, irrelevant and false issues, emerged from the discussion. The participants were of the opinion that pharmaceutical advertisements provide irrelevant and false

information that may result in consumers being unable to make conscious and informed purchasing decisions. A female participant was of the opinion that pharmaceutical products are often represented in advertisements as definite cures: "It will help you immediately with what you have [...] and it works for you [...] and that's not always the case". She added that valuable information is often lacking in such advertisements: "... it comes across as there's no side-effects".

The discussion highlighted the advertising of slimming and muscle-gaining products. The participants complained that such advertisements incorporate photographs of male and female models to create the notion that a person who uses these products will resemble the models. One of the male participants argued that consumers are often misled and not always aware that such products must be used in conjunction with a diet or exercise programme. The group agreed that these advertisements are designed to mislead consumers into buying the products advertised. A male participant stated that "... it's a lot of times misleading but that's how they strike you [...] that's how they get you to buy the product".

Concern was raised that such advertisements are not always forthcoming as they lack important information. One of the male participants stated: "those products, do they tell you what the side-effects are? [...] Does it indicate all those things?". It was also mentioned that important information, such as for example side-effects, is never to be found in these advertisements but rather on the packaging of the product.

5.2.2 Comprehension of pharmaceutical advertisements

The participants were asked whether pharmaceutical advertisements are difficult to understand. Most agreed on this issue. Two themes emerged, the degree of understanding and the information provided.

The group was of the opinion that all the necessary information cannot be provided in a limited space. One of the participants stated: "... because they don't always have the space [...] it's normally short and sweet [...] just enough to get your attention".

One of the participants felt that the information provided in advertisements often leads consumers to buy certain products for cer-

tain conditions and symptoms. There was also a belief that this will result in consumers believing everything they read.

5.2.3 Aesthetic appeal

The group was asked whether the colour and pictures in pharmaceutical advertisements attracted their attention. They agreed that these aspects easily attracted their attention, especially when looking at pharmaceutical advertisements in print form. However, during the discussion no mention was made of the role of colour. Yet two themes emerged in this regard, namely attraction and comprehensibility.

From the discussion it appeared that including pictures makes advertisements more attractive and interesting to read. A female participant confirmed this and referred to these pictures as “pretty pictures”.

However, participants supported the inclusion of pictures in pharmaceutical advertisements, because pictures improve the advertisement’s degree of understanding and its readability. One of the female participants stated: “... some pictures are a lot better to understand than a whole bunch of big words [...] and it’s less effort to read ...”. A male participant added: “... a picture can tell a thousand words”.

6. Discussion

The focus group raised important issues which need to be addressed in more detail. Pharmaceutical advertisements evoke various desires; often provide irrelevant and false information, are often difficult to understand, and often include pictures to increase their attractiveness. These issues can all be compared with the World Health Organisation’s guidelines regarding pharmaceutical advertisements (WCRD 2007).

It was mentioned that pharmaceutical advertisements have the potential to evoke desire among various types of consumers. For example, the sick or dying, and those who have a strong desire to look like models portrayed in advertisements might be attracted to or influenced by these advertisements. In this sense desire is used as a marketing ploy to sell the pharmaceutical products advertised.

Literature surveyed indicated that advertisements are persuasive in nature and that emotion is used to achieve this (Clow & Baack 2005: 213, Tellis 2004: 203). A persuasive nature is achieved when favourable arguments are used in advertisements (Belch & Belch 2004: 779, Tellis 2004: 203). During cognitive processing, consumers will develop a positive attitude to these arguments resulting in persuasion. In this case aspects to evoke emotion can be used as a favourable argument (Belch & Belch 2004: 779, Tellis 2004: 203). For example, an advertisement depicting a sick grandmother not receiving the required treatment versus a healthy grandmother enjoying special family time can evoke an emotional feeling of responsibility towards family members.

This raises the question of whether in these instances such advertisements are ethical in nature. The World Health Organisation defines ethical criteria with respect to pharmaceutical advertising as criteria that “lay the foundation for proper behaviour concerning the promotion of medical drugs, consistent with the search for truthfulness and righteousness” (WCRD 2007).

Many pharmaceutical advertisements often employ this method of creating sales. One can only think of awareness campaigns or print advertisements regarding the treatment of erectile dysfunction and chronic conditions such as hypertension, cholesterol, and diabetes where such advertisements depict healthy and positive end results. It can be argued whether such advertisements are truthful and righteous according to the World Health Organisation’s guidelines (WCRD 2007).

In addition, it was thought that consumers are faced with often irrelevant and false information. It was mentioned that certain medications are portrayed in advertisements as definite cures, when in fact this is a false notion. It was also thought that certain pharmaceutical advertisements often omit the necessary information required by consumers enabling them to make informed purchasing decisions.

The World Health Organisation’s guidelines can be followed to ensure the inclusion of correct information in pharmaceutical advertisements which are directed at the general public (WHO 1988).

These guidelines recommend that vital information such as major indication(s) for use, any warnings, major contra-indications, and any precautions should appear in these print advertisements (WHO 1988). In addition, the majority of countries have ethical guidelines and rules for specific information in pharmaceutical advertisements. Even with these guidelines and regulations in place, many pharmaceutical companies and advertising agencies often publish pharmaceutical advertisements that do not adhere to them.

The study also determined that pharmaceutical advertisements can often be difficult to understand due to the medical jargon which in most cases is foreign to the lay public. In South Africa, guidelines regarding the advertising of over-the-counter medicines state clearly that these advertisements should be in a language that is easily understood and free from any medical terminology that may cause confusion (ASASA 2004).

Finally, the issue of the use of aesthetics in pharmaceutical advertisements to attract consumers' attention should be mentioned. This refers to the use of pictures. The participants in this study stated that the pictures in pharmaceutical advertisements make them more attractive. One participant stated that "a picture can tell a thousand words". A picture can tell a story that does not always reflect the actual qualities of the product.

An advertisement for a well-known HIV/AIDS treatment in South Africa depicts a man climbing a mountain. This may cause the consumer to think that s/he might become healthy at any stage of this disease and enjoy life as depicted by a healthy man hiking in the mountains. The man supposedly has HIV/AIDS but after taking this treatment appears to be sufficiently healthy and fit for a hiking expedition. This photograph sketches the idea that if one takes this treatment, one will be as healthy as the man depicted, irrespective of the stage of the disease. There is no doubt that HIV/AIDS treatments prolong the quality of the consumer's life. However, no treatment can ensure that a person will be as healthy as depicted. Such advertisements may give these consumers false hope.

7. Conclusion

The focus group highlighted the various issues mentioned above. These are valid concerns that need to be borne in mind when focusing on the ethical criteria of pharmaceutical advertisements. It must be realised that so-called health care-related services such as pharmaceutical advertisements should be accountable to a much higher ethical standard than any other form of advertising. South Africa should ensure that pharmaceutical companies and advertising agencies adhere to these ethical rules and guidelines.

The ultimate aim should therefore be to ensure that these ethical rules and guidelines provided by South African law and by the WHO are mandatory. Although this may be impossible, steps should be developed to spread the idea among consumers that health care workers, such as community pharmacists, are the best sources of information regarding health care. The onus, therefore, rests on community pharmacists to be actively involved within their communities, and to become leaders in ensuring that the customer is given the best communication and appropriate information. Conversely, consumers should also become aware that community pharmacists can be their primary source of information regarding health care and should be sufficiently confident to approach them for any information.

8. Recommendations

First, community pharmacists should become aware of the risks when consumers are exposed to pharmaceutical advertisements. By becoming aware of these risks, community pharmacists will be in an ideal position to educate consumers about these.

Secondly, regional and national campaigns should be employed to create awareness of the services and health care advice that can be provided within their communities by, for example, community pharmacists. This will show that consumers can utilise their community pharmacists as primary source of information regarding health care without having to depend on pharmaceutical advertisements for information. This will also ensure that consumers will be referred to doctors where needed, thereby reducing inaccurate and potentially dangerous self-diagnosis.

The best scenario would be to ban medicines from being advertised to the general public. Pharmaceutical advertising, however, has become a powerful marketing tool with considerable financial benefits for an already wealthy health care industry (Belch & Belch 2004: 15-7, Vilanilam & Varghese 2004: 4).

9. Limitation

Only one focus group was conducted. Although vital information was obtained from this focus group discussion, it is recommended that more than one focus group be held in future, should a similar study be conducted.

10. Suggestions for further research

The focus group identified various areas that require further research. One prominent aspect in the discussion was the advertising of slimming and muscle-gaining products. Participants believed that advertisements for these products were misleading. It is therefore suggested that the psychological effect of these advertisements on consumers should be investigated. In particular, this may identify whether advertisements for slimming products play a role in the development of addiction, and weight loss disorders such as anorexia.

Information obtained from such a research suggestion will place health care workers in a better position for understanding the effect such advertisements may have on consumers. This will ensure that health care workers, such as community pharmacists, provide valuable information regarding health care that will warn consumers about the possible dangers of these products and their advertisements.

Due to the concerns raised, pharmaceutical advertisements should not be used as the primary choice for information regarding health care. Like advertisements for cigarettes and alcohol, the educational value of pharmaceutical advertisements is doubtful. Consumers should be educated about the disadvantages of pharmaceutical advertisements.

The value of pharmacists' health care skills should be realised. Pharmacists' counselling skills should ideally be used as primary educational tool to convey valuable information regarding health care to consumers.

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