
Original Article

Segmenting cosmetic procedures markets using benefit segmentation: A study of the market for tooth whitening services in the United Kingdom

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ABSTRACT Market segmentation is regarded as one of the core elements of marketing, and one that is relevant and important to the pharmaceuticals and medical sector. Yet, within the literature, there are few studies of segmentation evident, and the segmentation of consumer markets for cosmetic medical procedures is an issue yet to be addressed; indeed, this has only become relevant in recent years with changes in the environment. This article presents the findings of a segmentation study into the market for tooth whitening services in the United Kingdom, a market that is still at a relatively early stage in its development. The study utilises benefit segmentation, which is often referred to as the most meaningful form of segmentation, and identifies five distinct market segments. Key implications for marketers in this and related sectors are identified.

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INTRODUCTION

Segmentation research

Market segmentation is regarded as one of the core elements of marketing,^{1–4} with benefit segmentation often being referred to as the most meaningful form of segmentation.^{5,6} Although segmentation's importance is widely accepted, there is a lack of research in the field of

segmentation,⁷ and no prior research specifically examining markets for cosmetic medical or dental procedures. It seems likely that this lack of attention is related to the relative immaturity of direct to consumer marketing for medical products. In fact, more generally, there are few practical examples of segmentation studies evident,⁴ hence the rationale for this research.

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This study segments the market for professional tooth whitening services using the benefits sought by consumers as the basis for segmentation. Although there is a lack of published articles on segmentation in the literature, there are even less published on benefit segmentation. This lack of research is often attributed to the fact that most investigations are privately funded and carried out confidentially for companies.⁸ This results in an arguably significant gap in the literature, particularly with regard to methodological guidance, and more so for those working in the fields of cosmetic medical and dental procedures. This lack of research is despite the fact that, for pharmaceuticals companies, segmentation could offer the potential to create an advantage over their competitors and improve their performance.⁹ Therefore, the aim of the study is to identify benefit segments within the professional tooth whitening market. This is of critical importance to marketers as effective segmentation could provide important information about target segments, allowing better adjustment of the market offering and better positioning,⁴ as well as leading to more effective marketing communications because of increased knowledge about consumer motivation.¹⁰

Background on the market for tooth whitening services

This study focuses on utilising benefit segmentation to examine the market for tooth whitening services, which forms part of the larger market for cosmetic dentistry products and services, which is significant in size. In America, where the market is arguably more developed than in the United Kingdom, this market has experienced explosive growth¹¹ in recent years. In the United Kingdom, the cosmetic dental surgery market has been valued at £519 million, with opportunities for further growth, rising to

£1 billion by 2012.¹² Indeed, the growing acceptance and reduced stigma towards such treatments¹³ is likely to further promote this growth. This change in perceptions is resulting in a move away from a customer base limited to celebrities and towards these treatments becoming more commonplace among a wider variety of individuals.¹⁴ Furthermore, media coverage has created a high level of consumer interest in such procedures and services.¹²

The use of cosmetic dentistry procedures by celebrities, alongside its increased use among mainstream consumers, has resulted in a growing awareness of cosmetic dentistry among consumers in general, which is creating a shift from 'type of procedure' to advertising at a brand level.¹² The growing market has also opened up a wider variety of outlets at which such treatments can be received, including specialised salons and spas that can offer cosmetic treatments in a comfortable environment, regular dental surgeries and dental hospitals.¹² The increased 'mass market' appeal of these services, alongside growing competition in the market (at a product/manufacture and service delivery level), and an increase in brand level awareness, creates a greater need for marketers to effectively target consumers in order to improve the effectiveness of their marketing strategies and compete in this growing marketplace. Indeed, this applies to both the tooth whitening product brand owners, and the dentistry service providers themselves.

In the United Kingdom, professional tooth whitening procedures are only legally allowed to be performed by dentists, dental hygienists and dental therapists on the prescription of a dentist.¹⁵ The current legislation implemented by the UK Cosmetic Products Regulations (1996) prevents any whitening product containing more than 0.1 per cent hydrogen peroxide to be

advertised to the public. Whitening companies have sought to overcome this by reaching consumers through product placement in makeover programmes, for example Ten Years Younger (Channel Four), Extreme Makeover (Living TV),¹² which is a potentially powerful marketing tool.^{16–18} Similarly, celebrity advocates (such as cosmetic dentists in television shows) are also being utilised in this market (for more information on the importance of advocates, see Arora;¹⁹ Petty *et al*).²⁰ Thus, although direct to consumer advertising is not possible, the use of product placement and celebrity advocates means that marketing and understanding target markets in order to effectively reach them, using these methods, is still of great importance. Furthermore, it is expected that this legislation will be abolished, allowing direct advertisement to consumers in the not too distant future.²¹ This would impact on both the manufacturers of the whitening products and the service providers, further enhancing the need for effectively targeted marketing communications, and differentiation of products in the minds of the consumer, particularly as there is very little chemical difference in the whitening products produced by the different companies.

LITERATURE REVIEW

Overview of market segmentation variables

A number of different potential methods of effectively segmenting markets are cited

in the literature (see Table 1), the most commonly referred to^{4,10,22,23} is Kotler's²⁴ four variables: geographic, demographic, psychographic and behaviouristic.

This study focuses on benefit segmentation a form of behaviouristic segmentation which relies on the underlying assumption that the benefits sought by consumers are the basic reasons for the existence of market segments,⁸ that is, perceived benefits are the key reason consumers choose a product or service.³¹ There are many well-documented advantages of benefit segmentation (see Table 2).

Once benefit segments have been established, 'second order' segmentation can occur, in which each of the segments identified can be analysed in terms of the demographic characteristics.³² However, this analysis does not have to be limited to demographic measures, and can incorporate several 'related' segment bases, although little guidance is given in the literature on these 'related' bases.³⁰ Urban and Hauser³³ suggest that the more segmentation methods that can be applied to a situation the more thorough the analysis will be. This secondary analysis contributes to a deeper understanding of the way members of each segment can be reached.⁸ Increased information about consumers motivations for purchase behaviour and their media consumption can directly influence product planning, positioning and advertising communications.^{6,22,34,35} Thus, segmentation of an emerging market, such as the market for professional tooth

Table 1: Overview of research into the four main segmentation methods

Geographic	Haley; ⁸ Beane and Ennis; ¹⁰ Hawkins, Roupe and Coney ²⁵
Demographic, eg age, gender and occupation	Haley; ⁸ Beane and Ennis; ¹⁰ Botschen <i>et al</i> ; ²² Frank ²⁶
Psychographic segmentation	Beane and Ennis; ¹⁰ Wells; ²⁷ Ziff; ²⁸ Plummer; ²⁹ Young <i>et al</i> ; ⁶ Weinstein ³⁰
Behaviouristic segmentation, eg purchase occasion, user status, degree of usage, degree of loyalty and benefit sought	Beane and Ennis; ¹⁰ Frank ²⁶

Table 2: Summary of the advantages and disadvantages of benefit segmentation discussed in the literature

<i>Benefit segmentation</i>	<p>Advantages:</p> <ul style="list-style-type: none"> • Most meaningful form of segmentation^{5,6} • Better at explaining consumer behaviour²³ • Examines causal as supposed to descriptive factors^{10,22} • Can easily be combined with other descriptive bases^{30,32,33} • Can lead to effective product planning, positioning and marketing communications^{5,22} • Can make marketing communications more relevant, thus more effective and cost efficient²⁷ • It is believed to be the optimum method of segmentation for pricing and distribution²⁸ • It is applicable across multiple different markets for use with products, services and ideas (ie, charitable marketing)³⁰ 	<p>Disadvantages:</p> <ul style="list-style-type: none"> • Relies on the collection of vast amounts of data that may require complex analysis³⁰ • Can be expensive to perform³⁰ • Confusion from semantic differences in interpretation of the stated benefits can arise¹⁰
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whitening, is a key consideration for marketers. The many advantages of benefit segmentation have led to the view that it is the most favourable method of analysis of new or emerging markets,^{8,36} and was thus deemed appropriate for this study. In addition, prior research in America suggested several possible motivations for cosmetic procedures,^{37,38} implying that different benefits are being sought and thus that this may be an appropriate method of segmentation within this type of market.

Evaluating market segments

A number of writers provide some suggestions as to the criteria that are appropriate for segment evaluation,^{34,39–41} the most frequently cited criteria for good market segments are those described by Kotler²⁴ (cited by a number of authors^{4,5,10,34}). These state that good segments should be measurable, substantial, accessible and actionable.

Within segment, homogeneity of customer requirements and buying behaviour^{10,28,42,43} are arguably the most critical assumptions of segmentation, and necessary in order to generate effective meaningful segments. Effective segmentation allows marketing strategies to be designed around target segments creating a closer alignment between

customer needs and marketplace offerings, leading to increased customer satisfaction and loyalty, and a stronger competitive positioning.^{2,4,5,42,44} The information generated during segmentation studies regarding target segments provide guidance for advertising execution, media consideration, merchandising and promotional materials.⁶ This insight can also inform more efficient resource allocation,^{5,6} because of a better understanding of the potential profitability of target segments in relation to the investment required to reach them. Information gathered about the amount customers are willing to pay for a product or service can also help to maximize profits and set prices that discriminate between segments.⁴⁵ Information relating to the segments observed can also help to inform companies as to the most suitable target market strategy and competitive positioning.^{5,46}

It has been suggested that all markets can be profitably segmented,^{8,46} although the criteria on which to base segmentation strategies are almost limitless.⁸

Developing an approach for segmenting a market

The limited literature on benefit segmentation provides little methodological guidance for conducting

segmentation studies; however, some suggestions about potential methodologies have been made. Myers,⁴⁷ Botschen *et al*²³ and Haley⁴⁸ advocate an exploratory research phase; in order to assess potential benefits, the former two researchers specifically suggest that this should be with consumers, whereas Haley is less specific. It is suggested that this initial stage of investigation should feed scale development, which should be analysed in the second phase of research.⁴⁸ The way in which the benefit segments are analysed, that is, the choice of additional bases of segmentation has received some discussion. Hooley and Saunders³² suggest analysis of the benefit segments identified by demographic characteristic, other authors^{30,33} advocate the use of multiple descriptors, but make no suggestion of the specific configuration of bases. Haley⁴⁸ is one of the only authors to explicitly suggest that benefit segments should be described by behaviour, demographics and lifestyle characteristics. Although these descriptors are obviously advantageous, there is nothing to stop researchers from incorporating each of these types of descriptors, in an attempt to incorporate the different strengths associated with each of the methods and minimise the associated weaknesses. In the case of this research, the value of each would be assessed with regard to the final results.

The role of segmentation in the tooth whitening market: The importance of direct to consumer marketing and product placement

For marketers working in the medical field, segmenting consumers has arguably, until relatively recently, been of little value. The marketing of medical products directly to consumers began in the 1980s⁴⁹ and has not only affected the patient–physician relationship but also highlighted the need for meaningful segmentation of the market.

One of the key reasons for this change in marketing environment is the increase in information available to consumers regarding branded drugs and medical products, which has led to a shift in the patient–physician relationship with increased feelings of empowerment among patients.^{50,51} It has been suggested that this change in the power balance between patients and medical professionals will cause change in the nature of the relationship with many patients looking to medical professionals to provide further insight into products they have seen directly advertised.⁵² Thus, medical professionals will still be important to the selection of treatments, particularly as there is a relationship of trust with the patient,⁵¹ but marketing will also increasingly influence perceptions and behaviour. Therefore, as within the medical field, more generally within the dental industry, marketing directly to consumers is likely to increase in the future. Consequently, the relative importance of the brand versus the existing relationship the patient has with the dentist, in their choice is not known.

This study focuses on one area of the cosmetic dentistry industry, professional tooth whitening products. Research into segmenting this market is relevant and important for a number of reasons. First, whitening companies and dentists could benefit from the increased understanding of the marketplace and how to target the market most appropriately.^{5,46} With the increasing use of product placement, the insight into media consumption that can be provided by segmentation studies could also enable better targeting. Growing awareness of these products among consumers also highlights a need for increased insight into the differences in consumers' needs, wants and motivations, which can directly inform marketing communications making them resonant.²⁹ Prior research into motivations for

cosmetic procedures has also suggested a range of different possible motivations that may be applicable to the tooth whitening market including the desire to emulate celebrities³⁷ and in preparation for an event.³⁸ This would imply that there are several different possible benefits being sought and that benefit segmentation is therefore appropriate. However, it is worth noting that the studies into motivation for cosmetic procedures are based in America, and examine motivations for cosmetic procedures in general. Thus, insights are limited in some respects, providing further justification for this study, and its focus on the United Kingdom.

METHODOLOGY

The two-phase methodology employed for the research reflected the suggestions of Botschen *et al*²³ and Myers,⁴⁷ with the first stage consisting of qualitative interviews that were then used to generate questions for the second phase of research, which took the form of a quantitative questionnaire. Eleven semi-structured interviews were conducted with key opinion formers in the market, which consisted of dentists from a range of different practices including National Health Service (NHS) practices, smaller private practices, larger London private practices and a dental school. A second set of interviews was carried out with six interviewees within three major whitening companies. This variety of different interviewees, working in a range of different environments (different surgeries and companies), was in accordance with the 'triangulation' method proposed by Pollit *et al*⁵³ in an attempt to improve validity. The selection of opinion formers was done in an attempt to incorporate those individuals whose opinions are likely to shape others.^{54,55} The interviews explored a range of different topics including patient benefits, factors effecting

consumers' choices and the effect of direct to consumer advertising. Analysis was conducted through three steps: coding and reduction of the data, organising of data, and drawing and verifying conclusions. A feedback method was also employed, in which findings were shown to the original participants in order to ascertain their opinion and attempt to improve the validity of the findings.^{56,57}

This investigation employed an *a priori* segmentation design with the basis for segmentation being the benefits sought by customers (as identified in the qualitative phase). For more information about *a priori* and cluster-based segmentation design, see Wind.³⁶ The statistical analysis of the information collected in the quantitative phase of the study was then used to prove or disprove the existence of the proposed benefit segments.

Phase 2

The second phase of research consisted of a self-administered questionnaire that was given to participants to complete while in the waiting rooms of a range of dental practices. Item generation for the questionnaire was based on the methods suggested by Bourque and Clark:⁵⁸

- Adoption and adaptation questions used in other questionnaires.
- Development of project-specific questions, in particular, incorporating academic literature, the Mintel reports^{12,59} and the findings from stage one of the research.

This study employed a methodology that included demographic, behavioural and lifestyle information (suggested by Haley⁴⁸) as well as psychographic descriptors of segments, as previously described. Items relating to geographic characteristics were not included because of a geographically limited collection of data (South of England). The price patients were willing

to pay was also chosen as a descriptor variable, as it is a good source of tactical data providing valuable strategic information.³²

A self-completion questionnaire was deemed most appropriate because of the nature of the topic and consequently the risk of participants giving socially desirable answers or answers being influenced by the presence of an interviewer (as suggested by Tourangeau and Smith⁶⁰). The questionnaire was given to patients to complete in the waiting rooms of a range of different dental practices all of which offered professional teeth whitening. The dental practices used included NHS practices (which offered professional whitening services privately), smaller private practices and larger private practices.

Of the 204 participants who completed the questionnaire, 42 were male. This reflects previous research, which highlighted that the majority of people who have cosmetic dental procedures are female.¹² A form quota sampling was used in which each dental surgery was given 50 copies of the questionnaire. Two hundred and four participants completed questionnaires. The only prerequisite of participants completing the questionnaire was that they had already had or would consider having professional teeth whitening, as this was a requirement in order to establish motives and so on.

FINDINGS AND DATA ANALYSIS

The results of the questionnaire were statistically analysed using Multinomial logistic regression in order to prove or disprove the existence of the benefit segments in accordance with the method of statistical analysis of *a priori* segmentation suggested by Wind.³⁶ The segment characteristics were then analysed using Cross tabulation with Chi-squared being used as a measure of the significance

of the association between variables and benefit segments.

Findings

The first stage of the data collection provided insights into the tooth whitening market, and, in particular, six key 'benefits of treatment' were highlighted, which are as follows:

- Desire to achieve a celebrity look.
- To fix general darkening of the teeth because of ageing.
- To fix discolouration caused by damage, for example trauma.
- To enhance career prospects.
- In preparation for a special event, for example wedding.
- To fix discolouration caused by smoking.

These benefits were then transferred into the questionnaire for testing. However, after pilot testing the questionnaire, it was decided that the motivation to seek whitening 'to fix discolouration caused by smoking' would be eliminated, as no respondents indicated it as a benefit they were seeking from treatment; furthermore, it was only mentioned once during the interviews. The interviews with dentists also provided four key factors, which dentists believed influenced patients' choice of location for treatment.

The second phased tested these five benefit segments using multinomial logistic regression. The results indicated the existence of five distinct segments with homogeneity of variance within groups and heterogeneity of variance between groups ($P < 0.01$), thus allowing the rejection of the null hypothesis that all segments were made up of similar participants. Further, Chi-squared analysis of the results indicated that there were several variables along which the segments proved to be significantly different from one another ($P < 0.01$) (see Tables 4, 5, 6 and 7 for full list of significant findings).

The segments

One of the most notable differences between the segments was that all segments predominantly consisted of women, which is largely in line with previous research,¹² with the exception of the trauma segment (see Figure 1 and Table 3). The ages of members of the different segments were also significantly different from one another (see Table 3). This information could be useful in increasing the relevance of marketing communications within chosen segments.

There were significant differences between the segments in the amount consumers were willing to pay for their treatment, with the career and trauma segment willing to pay considerably more than other segments (see Table 3). The results indicated that the career and trauma segments were the only ones to rate the cost of the procedure as ‘not very important’ (see Table 4). Although this might suggest that the career and trauma segments appear to be the most attractive, they were the smallest segments (see Figure 2).

On the basis of the information regarding how much the members of each segment are willing to pay and the segment size as a percentage of the whole market (see Figure 2), it is possible to see that these markets differ in their desirability based on their relative size and the price they would be willing to pay. The results indicate that the most desirable segment was celebrities, followed by age, career, special event and trauma, respectively. Although this is useful for determining prices, the true profitability of each segment would also depend on a range of other factors, such as cost of serving and so on.

The results in Table 4 show that other key differences between the sectors can be seen, particularly with regard to the number of visits consumers were willing to make in order to complete treatment and the place in which they would be most likely to seek or access whitening services, with clear implications for targeting. Service providers could use this information to assess potential target segments, for example dental

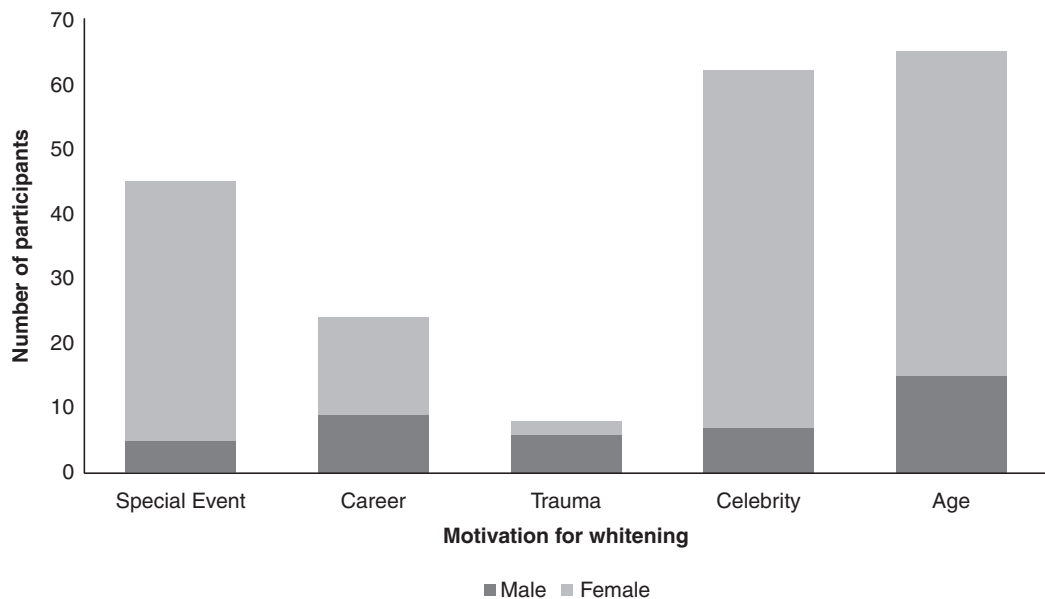


Figure 1: Bar graph showing the gender of the members of each of the segments.

Table 3: Table showing differences in demographics, price sensitivity, preferred location for treatment and preferred number of visits between the segments

	<i>Benefit segment</i>				
	<i>Special event</i>	<i>Career</i>	<i>Trauma</i>	<i>Celebrity</i>	<i>Age</i>
	<i>Female</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Female</i>
<i>Gender</i>					
Age (years)	35–44	25–34	25–34	18–24	55–64
Marital status	Married/living as married	Married/living as married	Married/living as married	Single	Married/living as married
Working status of main income earner	Intermediate managerial/administrative or professional	Senior managerial/professional	Mixed	Mixed	Intermediate managerial/administrative or professional
Household income	Mixed	£25 000–£49 000/£50 000+	Mixed	Mixed	£25 000–49 999
How much they are willing to pay	£200–£300	£500–£600	£500–£600	£400–£500	£200–£300
Number of visits willing to make	1	1	3+	1	2
Preferred location for treatment	Mixed	Specialised salon	Regular dental surgery	Specialised salon	Regular dental surgery

Table 4: Table showing variation between the segments in the factors that participants rated as important to their choice of whitening brand and service provider

	<i>Benefit segment</i>				
	<i>Special event</i>	<i>Career</i>	<i>Trauma</i>	<i>Celebrity</i>	<i>Age</i>
Whitening brand well known	Not very important	Important	Not very important	Important	Not very important
Person performing treatment is their own dentist	Not very important	Not very important	Very important	Not very important	Important
Time taken to complete treatment	Important	Very important	Not very important	Important	Not very important
Cost of treatment	Important	Not very important	Not very important	Important	Important
Convenience of appointments	Important	Very important	Not very important	Important	Important
The advertising used by whitening brand	Not very important	Important	Not very important	Important	Not very important
Point of purchase merchandise	Not very important	Not very important	Not very important	Not very important	Not very important
Does whitening brand on offer affect choice of location?	No (91%) Yes (9%)	No (71%) Yes (29%)	No (100%)	No (63%) Yes (37%)	No (80%) Yes (20%)

surgeries can target segments that have an existing preference for being treated at their regular surgery. If the members of a whitening company's target segment prefer to receive treatment at a specialised salon, then it would be important for that company to ensure that their products are available at these locations.

All of the segments, with the exception of the trauma segment, agreed that the convenience of appointments was important. Interestingly, point of purchase (POP) merchandise for teeth whitening products are universally rated as 'not very important' by members of all five segments, with clear implications for

promotion. The advertising used by whitening companies was also rated as 'not very important' by consumers in the special event, trauma and age segments, whereas advertising was perceived to be important by the remaining segments. It should be noted that, although for the majority of segments both advertising and POP merchandising were not considered important, this is not to say that members of these segments would not be influenced by them.

The results for both the celebrity and career segments suggested that it was important that the brand was well known, but the remaining segments indicated that they thought this was 'not very important'. Although on average all segments indicated that the brand of whitening products being used would not affect their choice of location for treatment, a higher proportion of the career and celebrity segments believed that it was a factor affecting choice of

location for treatment (see Figure 2), indicating that these may be good target segments for direct marketing (Figure 3).

There were also significant differences between segments when it came to how important they believed it was that their treatment was carried out by their own dentist (see Figure 4). Notably, the trauma and age groups believed that this was of greater importance.

This analysis reveals differences in the importance that the segments place on various aspects of the whitening procedure (see Table 4), as well as similarities between some segments in certain respects. Both the trauma and age segments believe that

- their own dentist carrying out the treatment is important;
- whitening companies advertising and POP merchandising are not important;
- the brand of product used is not important.

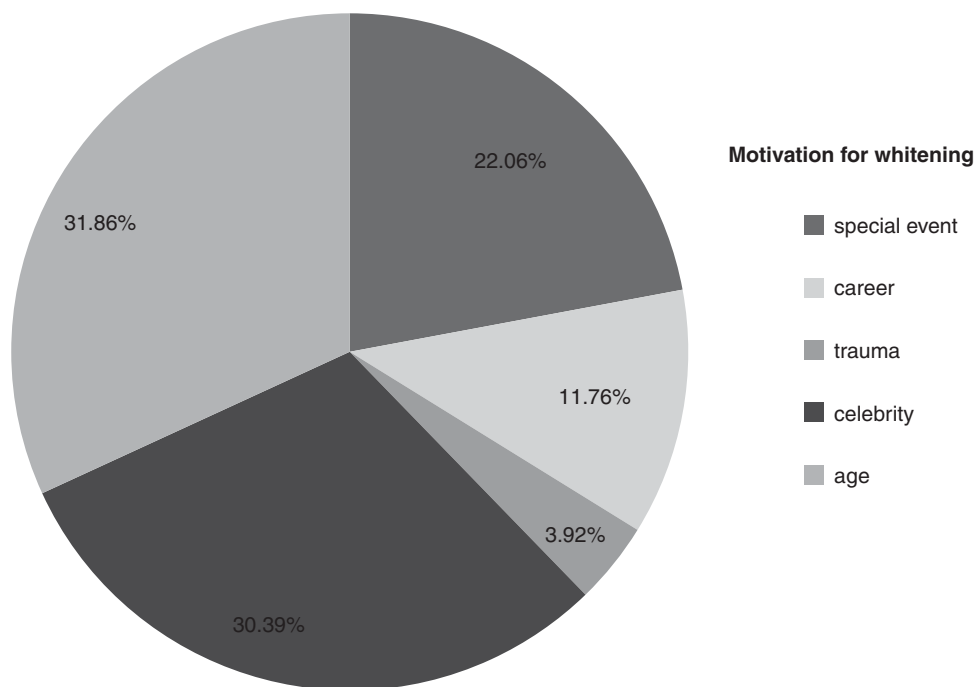


Figure 2: Pie chart showing the relative size of each of the segments.

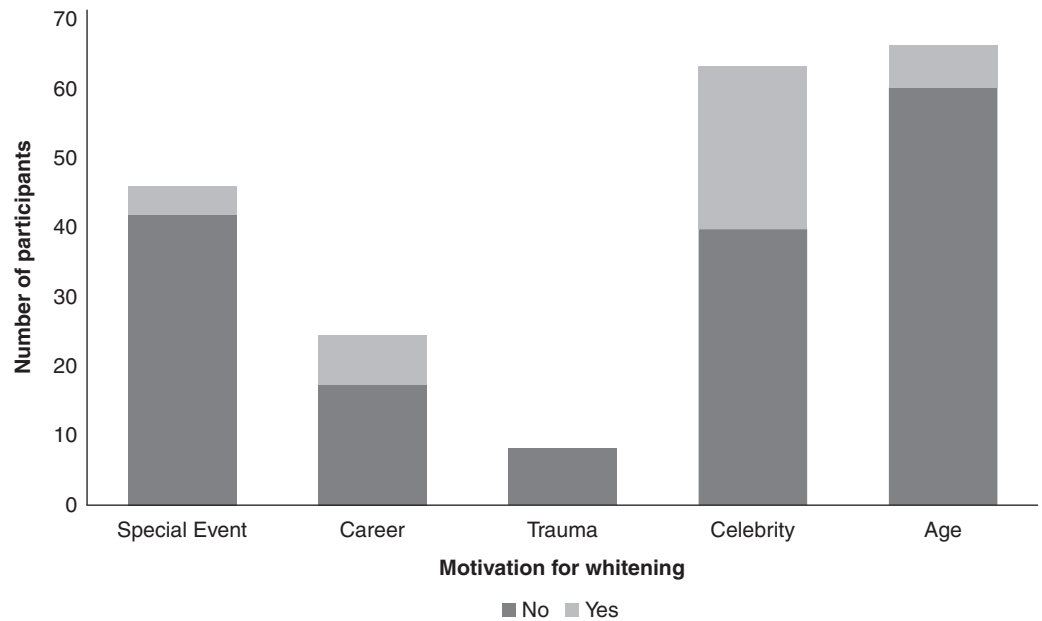


Figure 3: Bar graph showing variations between the segments in whether the brand whitening product on offer would affect their choice of location for treatment.

This suggests an increased level of trust in their dentist, indicating that members of these segments are happy with whatever brand of whitening product their dentist sees fit to use. The career and celebrity segments also shared some commonalities as follows:

- their own dentist carrying treatment is not important;
- use of a well-known brand of whitening product is important;
- advertising used by whitening companies is important;

Thus, career and celebrity segments were, perhaps, more brand-focused and less concerned with their knowledge of the person carrying out the treatment. The special event segment only rated convenience, time taken to complete the procedure and cost as being important factors. This suggests that similar to the career and celebrity segments, they have no preference for their own dentist to carry out the treatment, but, unlike the

career and celebrity segments, they have little interest in the brand of whitening product used.

Media consumption

The segments identified differed significantly in their media consumption (see Table 5), with the celebrity and career segments spending the most time on the internet, and thus targeting would most likely be appropriate through this media. The celebrity segment also spent the most time watching television.

The types of magazines purchased also differed between the segments, with the age segment being the only ones to purchase women's weekly magazines and the special event segment being the only ones to purchase women's general interest magazines. The celebrity segment was the only segment to purchase weekly celebrity magazines with the special event and career segments being the only segments to purchase women's glossy fashion and

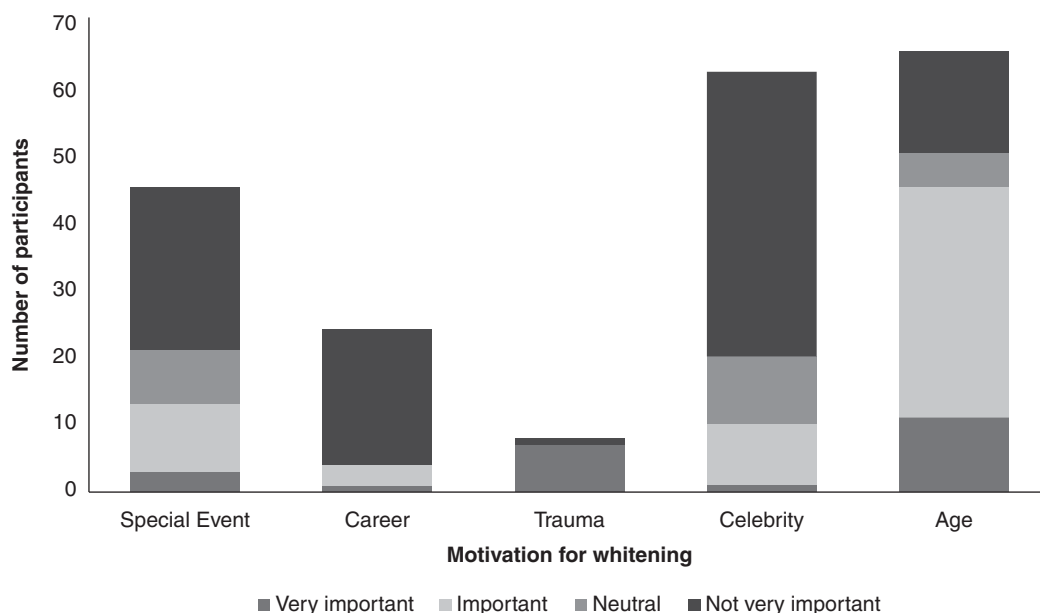


Figure 4: Bar graph showing differences between the segments as to the importance of the participant's own dentist being the one to carry out the treatment.

beauty magazines. Owing to the small number of male respondents, information regarding the readership of men's magazines did not prove to be significant. There were significant differences in the types of television programmes most frequently watched by each of the segments. Interestingly, only the celebrity segment watched reality television, and thus placement in 'makeover' programmes will only be suitable for this segment.

Psychological differences

The results of the questionnaire show that each segment had multiple psychological motivations for tooth whitening (see Table 6). Every segment agreed with the statements that tooth whitening increased self-esteem, improved the image that they gave off to others and would make them more attractive. The career, trauma and celebrity segments all believed that tooth whitening would help them to fit in better with their friends.

The existence of benefit-seeking segments focused on preparing for an event and

emulating celebrities, supports the findings of Schouten³⁸ and Desmond³⁷ in this area, despite the original studies being based on American participants. Importantly, understanding these and the other identified psychological motivations for treatment can increase the chances of effective and resonant marketing communications.²⁹

SUMMARY AND IMPLICATIONS

This study has utilised benefit segmentation to segment the market for whitening products providing an example of benefit segmentation within a dental cosmetic procedures market as well as insights for marketers and researchers in this and associated sectors.

Managerial implications: The whitening market

Kotler's²⁴ criteria for market segmentation would suggest that good segments should be measurable, substantial, accessible and actionable. The fact that this study has

Table 5: Table showing differences in the media consumption of participants in the different segments

	<i>Benefit segment</i>				
	<i>Special event</i>	<i>Career</i>	<i>Trauma</i>	<i>Celebrity</i>	<i>Age</i>
<i>Media consumption</i>					
Daily internet usage	Up to 1 hour	1–3 hours	Up to 1 hour	1–3 hours	Up to 1 hour
Hours of TV watched per day	Less than 2 hours	Less than 2 hours	Less than 2 hours	2–4 hours	Less than 2 hours
Type of magazine purchased	Women's glossy fashion and beauty/ women's general interest	Women's glossy fashion and beauty	Don't buy	Women's weekly celebrity/ women's glossy fashion and beauty	Women's weekly
TV programmes watched	News Soaps	News	News Sport	Soaps Reality TV	News

Table 6: Table showing the differences between the segments in the psychological motivations for treatment

	<i>Benefit segment</i>				
	<i>Special event</i>	<i>Career</i>	<i>Trauma</i>	<i>Celebrity</i>	<i>Age</i>
<i>Psychological differences</i>					
Increase self-esteem	Agree	Agree	Strongly agree	Agree	Agree
Fit in better with friends	Mixed	Agree	Agree	Agree	Disagree
Improve image given off to others	Agree	Strongly agree	Strongly agree	Agree	Agree
Makes you more attractive	Agree	Agree	Strongly agree	Agree	Agree
Important to fit in with the trend of tooth whitening	Disagree	Disagree	Disagree	Agree	Disagree

been able to identify distinct segments and assess their relative size means that they are measurable. The significant differences in each of the segments' media consumption also indicates that they are accessible. Whether the benefit segments identified are substantial enough to be profitable would largely be an issue for dentists and whitening companies to consider, and falls largely out of the scope of the study, although some basic indicators have been discussed. The industry forecast as suggested in the Mintel report on cosmetic dentistry¹² would suggest that even if segments are currently not deemed large enough to be profitable, they may increase in the near future. Similarly, whether each of the segments was actionable would also have to be considered on an individual basis as the distinct capabilities of the dental

surgeries and whitening companies should be taken into consideration.^{4–6} Although Kotler's criteria for good market segments are frequently cited, it has been suggested that it is hard to know when and how they could be applied in order to evaluate segments.⁴⁵ Frank *et al*²⁶ also suggest that good segments should be unique. The benefit segments identified in this study are statistically proven to be significantly different from one another, even though there are some similarities between the segments in terms of the factors members of each segment rate as important to them. On the basis of the findings it is clear that this emerging market can be segmented utilising this methodology, and the results provide important insights into each of the distinct segments that exist and how they could be targeted.

Segmentation research and future implications

Little attempt has been made in the literature to address the issue of those descriptors that are most appropriate for inclusion in benefit segmentation studies. The approach adopted in this study of the inclusion of multiple different types of descriptors – demographic, psychographic and behavioural – has ensured a range of different information about the segments that has been collected. A key descriptor included in this study was information pertaining to the price consumers are willing to pay as it is a key consideration in the segmentation of an emerging market and can provide valuable tactical information.³⁰ The inclusion of multiple varied descriptors of the benefit segments is a core aspect of the methodology and should be a key consideration in the benefit segmentation of markets for cosmetic medical procedures. This is particularly important as many of these are emerging markets, where benefit segmentation could provide diverse and rich information where there is little existing insight.

Another key feature of the methodology was the inclusion of key opinion formers in the qualitative interview phase of the research. Although several researchers refer to the use of a qualitative phase in segmentation methodology, mainly involving customers,^{23,47} the literature does not suggest the interviewing of key opinion formers or leaders within the associated industries, despite their greater importance in the literature.^{54,55} This study provides support for the fact that this can be an effective method of establishing possible segments within this type of market, which can then be taken forward for future testing.

One of the frequent criticisms of segmentation studies is that they produce segments which are not actionable.^{4,5,61–64}

This study finds that it can provide valuable segments that could influence marketing communications. In addition, the use of multiple varied descriptors of segments can provide information about the amount different segments are willing to pay, the product attributes that are important and the media consumption of each segment. This breadth of information attainable could enhance strategy development.

Although the costs of benefit segmentation may have changed in recent years, past research has suggested that this type of segmentation may be relatively expensive to perform.³⁰ However, this research highlights that benefit segmentation using this methodology need not require significant investment. Weinstein³⁰ also suggested that benefit segmentation requires the collection of vast amounts of data and complex statistical analysis; however, the statistical analysis of the data collected does not have to be as complex as some authors suggest. Cluster analysis is a popular method of statistical analysis which entails a relatively complex analysis of data collected using a statistical programme, which creates clusters of individuals with similar characteristics.¹⁰ Given the nature of the information collected in benefit segmentation studies and the use of an *a priori* methodology as employed in this study, multinomial logistic regression (as suggested by Wind³⁶) would seem a more feasible and far simpler method of statistical analysis.

The method of benefit segmentation used in this research could potentially be applied to many different cosmetic procedure markets, although there should be an appreciation of the fact that this methodology may require further refining and ‘educated adaptation’ based on the individual market (as suggested by Dibb and Simkin,⁵ Piercy and Morgan,⁴ Young *et al*⁶).

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