EXAMINING CUSTOMER EXPERIENCES WITH SERVICE PRODUCTS: AN MDR-TB PATIENTS' PERSPECTIVE

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Abstract: Several studies examined the experiences of healthcare staff. An understanding of experiences of consumers of healthcare services, which is the focus of this paper, is equally vital since a customer experience is a critical aspect of relationship marketing. This paper focuses on the experiences of MDR-TB patients in public health institutions in Mpumalanga. Based on an understanding of the experiences of such a cohort, it raises insights to management, government and policy-makers about how to deliver patient-centred healthcare services and enhance relationships with consumers of healthcare services. Using an instrument comprising 40 closed items, data were collected from 400 MDR-TB patients as participants. The convenience sampling technique was used. Descriptive statistics and factor analysis involving Varimax rotation were performed. The results show that five dimensions constituting a patient-centred care framework for MDR-TB patients. These are coordination and integration, spirituality, involvement of friends and relatives, environmental care, and continuity of care. We conclude that the five dimensions are adequate to construct a patient-centred care framework for MDR-TB patients in public health institutions in Mpumalanga. Based on the results and conclusions, a few recommendations and areas of further research are proposed.

Keywords: Mpumalanga Province, Tuberculosis, Integrated health care services, Factor analysis

Introduction

This section offers a synopsis of the management of healthcare delivery system in South Africa. The country has over 55 million people in terms of its population. Most people access healthcare services by visiting clinics and hospitals that are owned and run by the government. The healthcare delivery system is a two-tier system comprising public and private sector healthcare institutions. The former is owned and run by government and is grouped into primary, secondary, and tertiary healthcare facilities. The healthcare facilities are managed by provincial offices and they employ public healthcare workers. The Ministry of Health develops policies and manages activities in and among provincial offices and other departments. It caters for the uninsured population which is about 84% of the population although there are plans for the National Health Insurance. The latter is owned and controlled by individuals or companies. It caters for the insured and perceived better class. They are mainly located in urban areas and accessing them depends on a person's ability to pay. Section 7 of the Bill of Rights promises access to healthcare service to South Africa's citizens.

This study is conducted in the context of public healthcare institutions. Examining the experiences of patients in public healthcare institutions raises insights to management as to how they need to be responsive to their customers' needs and offer superior services. The next section examines the concept of customer experiences as an aspect of relationship marketing. Thereafter, the rest of the paper is structured as: research problem, research objective, research methods, results, discussion, conclusion, and limitations and further research.

Customer experiences

In South Africa, patients raise complaints regarding lack of optimal level of care (Jeroen De Man et al., 2016; Kelly, Smith, & Farley, 2016; Sinai & Kinkel, 2016) and it is important to explore the lived experiences of patients as consumers of health service products. Experiences are major determinants of attitudes, adoption and resistance behaviour. Whereas the theoretical framework underpinning the study is consumer behaviour, this paper specifically focuses on CRM as an aspect of consumer behaviour.

CRM is a management discipline and a philosophy that requires businesses to recognise and nurture their relationships with their customers (Soltani & Navimipour, 2016). This delineation implies customers' relationships with businesses must be clearly understood and managed. Other researchers (e.g. Baran & Galka, 2016; Diffley & McCole, 2015) define CRM as a process that involve collecting and analysing an organisation's information about its customer interactions with a view to enhance customers' values to an organisation. The information constitutes the basis for formulating and executing strategies to target consumer needs. Several scholars contend that the process increases customer loyalty and enhances an organisation's reputation ultimately creating sustainable competitive edge (Nyadzayo & Khajehzadeh, 2016; Soltani & Navimipour, 2016). Unlike traditional marketing, CRM is distinct in that it involves several transactions, regular and continuous interactions beyond a single exchange process and setting long-term objectives (Soltani & Navimipour, 2016). Similarly, public health institutions interact with MDR-TB patients on a regular basis to ensure patients are contented with the quality of public health service delivery.

CRM is examined from three perspectives namely; stakeholder model, supply chain model and the marketing concept model (Baran & Galka, 2016; Diffley & McCole, 2015). The stakeholder model recognises relationship management and marketing as important tools for developing and fostering long-term relationships. However, this paper does not examine the phenomenon of long-term relationships with patients. Instead, it focuses on the provision and management of patient-centred care. A supply chain model stresses the importance of channel members in ensuring an efficient and smooth supply chain. The relationship concept model views relationships as the lifeblood of the business and for the future direction of the business (Baran & Galka, 2016). It is based on the latter expositions that this paper examines experiences of MDR-TB patients in Mpumalanga.

According to Meyer and Schwager (2007), the concept of customer experience is used to describe customer-centric marketing that mainly focuses on forming and fostering relationships with customers. Such a characterisation considers experiences as aroused by the product offerings, type of wrapping, infrastructures, in-store communications etc. At the same time, LaSalle and Britton (2002) view the concept as an interface, or series of exchanges, that occur between a customer and a service or product offering, an organisation or its agent that result into a response. Pine and Gilmore (1999) summarise the definition of customer experience as those activities that uniquely engage persons. On the other hand, Gentile, Spiller, and Noci (2007) provide a comprehensive delineation and record that the concept of customer experience comes from a series of exchanges that occur between a customer and a service/product offering, an organisation, or its part thereof, that provoke a response. These delineations of customer experience confirm that customer experience is strictly an individual thing and that customer's involvement is seen at various echelons (such as rational, emotional, sensorial, physical and spiritual). The evaluation of customer experience is based on the contrast between customer's expectations and inducements that emanate from their interactions with an organisation and its product/service offerings in correspondence of the different moments of contact. The latter definition is adopted since it aligns with this research.

While Brakus, Schmitt, and Zarantonello (2009) concur with the above characterisation, they add that customer experiences are not simply wide-ranging evaluative judgments about a product or service but they include specific perceptions, emotional state, intuitions and behavioural reactions elicited by explicit incitements in a consumer's environment. The experiences lead to, sometimes, wide-ranging appraisals and attitudes, particularly assessments of the experience itself. The definitions of customer experience presented thus far suggest the importance of examining the concept. Several scholars (e.g. Prahalad & Ramaswamy, 2004) contend that, for most profit firms, it offers new means of competition. For most organisations, it is a basis for customer satisfaction, delivers loyalty, stimulates prospects, inculcates confidence, and creates emotive connections with customers (Berry & Carbone, 2007). Notwithstanding the benefits directly associated with customer experience, customer experience remains a subjective concept in that senior managers may regard their organisations as providing unrivalled customer experiences with which customers may differ. Based on this, customers' experiences must be examined from a beneficiaries' view to guide management and policy-makers in the management of patient-centred care in South Africa.

Research Problem

South Africa ranks among a few countries with widespread cases of MDR-TB patients globally (Marais et al., 2014). Its public health sector has well-documented lived experiences of healthcare staff compared to patients (Coetzee, Klopper, Ellis, & Aiken, 2013) who constitute the customers to healthcare institutions. An understanding of patients' lived experiences assists management and policy-makers to ensure responsiveness and prompt delivery of

quality services. In line with this view, exploring patients' lived experiences in terms of their interactions with the public health institutions and healthcare staffs makes sense because it is a critical part of consumer behaviour specifically on relationship marketing (MacFarlane & Stafford, 2016; Richards, Coulter, & Wicks, 2015).

However, patients' lived experiences have hitherto received scanty research attention (Dawood & Padayatchi, 2017). Moreover, the limited studies on the lived experiences of MDR-TB patients in the country appear to have focused more on three provinces namely KwaZulu-Natal, Eastern and Western Cape (Marais et al., 2014; Okoror, BeLue, Zungu, Adam, & Airhihenbuwa, 2014; Tudor et al., 2014) except Mpumalanga. Therefore, this paper determines the dimensions of lived experiences of MDR-TB patients in Mpumalanga. It is conducted in the context of business and management in that it examines customer experiences as a relationship marketing phenomenon.

Research Objective

The objective of this paper is stated as follows:

- To determine the dimensions of the lived experiences of MDR-TB patients in order to guide the provision and management of patient-centred care in the healthcare sector in Mpumalanga.

Research Methods

Primary quantitative data were collected from 400 MDR-TB patients in Mpumalanga's public healthcare institutions. An instrument with items totalling 40 was developed with 7 dimensions of lived experiences. The researcher distributed the printed version of the instrument to MDR-TB patients in Mpumalanga province using the purposive sampling technique. The technique was used because it assists to identify only the possible participants with specific characteristics required. In analysing the data using SPSS, two statistical techniques were performed namely descriptive statistics and factor analysis. The former involved presenting the results in the form of frequencies whereas the latter is a data reduction technique involving the extraction of factors using Principal Component Analysis (PCA) and subjecting them to Varimax rotation to refine them. Five items relating to profiles of participants are analysed using the descriptive statistics and 35 items plotted on a Likert scale from Strongly Agree to Strongly Disagree were subjected to factor analysis.

Results

A total of 430 questionnaires were distributed out of which 410 were returned. However, 10 questionnaires had too many missing responses and it was decided to discard them. This yields a response rate of 80%. The results of the descriptive statistical analysis of the profiles of participants are summarised in Table 1.

Table 1: Results of the descriptive analysis of profiles of participants

Demographic characteristics			%
Gender	Male		49.6
	Female		50.4
Age	21-30 years		21.2
	31-40 years		34.1
	41-50 years		29.0
	51-60 years		11.0
	61+ years		4.7
Race	Black		97.3
	White		02.0
	Coloured		0.8
Period of Illness	0-5 years	94.1	
	6-10 years		3.9
	11-15 years		1.6
	16+ years		0.4
Overall Rating	Do not meet the criteria	21.6	
	Not sure	46.0	

Meet criteria	26.8

Table 1 illustrates that 49.6% of the participants are males 50.5% are females. In view of the small difference in terms of gender distribution, it is clear that there is an even distribution of participants. Therefore, there is no bias in terms of participation by gender. All participants are aged 20 to 61+ years. Most participants are aged 31-50 years (63%). From Table 1, those aged 31-40 years are dominating and then followed by the 41-50 age range. Whereas those in the 20-30 years category constitute 21%, participants aged 51-60 years and 61+ are 28% and 12% respectively. The responses show that each age range is well-represented.

In terms of race and period of illness, the participants are predominantly black (97.3%) and in the 0-5 years (97.3%) group respectively. A total of 51.5 % of participants feel that services rendered do not meet patient-centred care standards. The remainders of 18.3% and 30.2% feel that services rendered meet the patient-centred care standards and neutral in their responses respectively.

The reliability of the instrument showed a Cronbach's alpha of 0.876 which proves a high level of internal consistency of the instrument with this specific sample. To perform factor analysis, two tests namely Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity are performed. The tests determined the suitability of performing factor analysis and they are both satisfactory (KMO=0.7 and Bartlett's test of Sphericity x^2= 2161.009; df=528; and p<0.000). A minimum KMO test loading of 0.7 is considered acceptable and thus the results confirm the adequacy of the sample. Bartlett's test is a test of the strength of the relationship among variables. The results of both tests confirm the factorability of the data or applicability of performing factor analysis.

Table 2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.659	14.119	14.119	4.659	14.119	14.119	2.750	8.333	8.333
2	3.074	9.314	23.433	3.074	9.314	23.433	2.740	8.304	16.637
3	2.465	7.471	30.904	2.465	7.471	30.904	2.163	6.555	23.192
4	1.889	5.724	36.628	1.889	5.724	36.628	2.050	6.212	29.405
5	1.714	5.195	41.824	1.714	5.195	41.824	1.891	5.730	35.135
6	1.588	4.812	46.635	1.588	4.812	46.635	1.866	5.654	40.789
7	1.538	4.662	51.297	1.538	4.662	51.297	1.842	5.582	46.371
8	1.472	4.461	55.758	1.472	4.461	55.758	1.665	5.044	51.415
9	1.273	3.856	59.614	1.273	3.856	59.614	1.615	4.893	56.308
10	1.027	3.112	62.726	1.027	3.112	62.726	1.567	4.750	61.058
11	1.002	3.037	65.763	1.002	3.037	65.763	1.553	4.706	65.763
12	.858	2.599	68.362						
13	.848	2.569	70.932						
14	.781	2.367	73.299						
15	.748	2.266	75.565						
16	.700	2.122	77.687						
17	.675	2.045	79.732						
18	.650	1.970	81.702						
19	.601	1.820	83.523						
20	.575	1.742	85.264						
21	.546	1.654	86.919						
22	.502	1.521	88.440						
23	.491	1.488	89.927						
24	.447	1.354	91.281						
25	.445	1.348	92.629						

26	.395	1.197	93.825						
27	.356	1.079	94.904						
28	.342	1.036	95.940						
29	.313	.950	96.890						
30	.290	.878	97.768						
31	.271	.821	98.589						
32	.244	.741	99.330						
33	.221	.670	100.000						

Extraction Method: Principal Component Analysis

Source: SPSS Output

Factor analysis was performed. Table 2 displays all dimensions extracted from the factor analysis accompanied by their eigenvalues and the factors with eigenvalues that are greater than 1 that are considered. The Principal Component Analysis factoring as the extraction method which involves Varimax rotation. In analysing and interpreting the data, only the initial eigenvalues or Extracted Sums of Squared Loadings are considered. In this case, 11 dimensions contain 65.763% of the variation of 33 variables considered. Component 1 explains 14.119% of the variation, component 2 explains 9.314%, component 3 explains 7.471%, component 4 explains 5.724%, and component 5 explains 5.195%. The last 22 components explain only 34.237%.

Discussion

The extraction of the dimensions from the rotated matrix was based on three criteria. First, the rotation used a cut-off point of 0.5 for each dimension loading. Second, items under the same dimension in the instrument but loaded in different dimensions in the Rotated Component Matrix are regrouped into their respective original dimensions, and the resultant dimension must comprise at least 3 variables. Based on the criteria, the paper yields 5 final dimensions that are discussed in the next sections.

Dimension 1: Coordination and Integration

Table 4 shows that patient-centred care must have open communication, the environment must friendly and welcoming, different stakeholders must be free to share experiences with a public health institution, participate in hospital committees, and consultation to make quality decisions. The literature is quite clear about the importance of communication. Several prior studies (e.g. Ekman, Hedman, Swedberg, & Wallengren, 2015; Richards et al., 2015) found that the channels of communication that public institutions adopt and use determine the success or failure of that institution. They also stress the significance of transparency in knowledge and information transfer to ensure that all parties feel they are part of the institution and their input is valued (Delaney, 2018; Vincent et al., 2016). The findings from primary quantitative data for this study and the literature relate quite well.

Table 4: Dimension 1 items

1	The hospital's commitment to patient-centred care is formally and consistently communicated with patients, families and staffs
2	Expectations for what staff can expect in a patient-centred environment are clearly stated and proactively shared.
3	Patients and family members are sometimes invited to share their experiences with our hospital, staff and the environment.
4	Patients are allowed to regularly and actively provide input about the hospital leadership on operational matters.
5	The input provided by patients is used to guide the hospital's strategic direction.
6	Patient-centred behaviour expectations are clearly stated and included in job descriptions and performance evaluation tools.
7	Opportunities exist for both formal and informal interaction between patients and other staff.
8	Managers are held accountable for walking the talk of patient-centred care.

Moreover, management in hospitals must be accountable and exemplary in everything they do. In other words, management of public hospitals must recognise that they are also employees tasked with a role of ensuring public effective service delivery. It implies that management must be hard-working, honest, transparent, and show a willingness to take responsibility for actions (Delaney, 2018; Vincent et al., 2016). They must constantly look for prospects to get feedback from patients to determine if patients' expectations are being met (Ogden, Barr, & Greenfield, 2017; Salisbury et al., 2018). The quality of interactions between public servants and patients and the ambience that management and healthcare staff create can set the scene for providing patient-centred care (Delaney, 2018; Fix et al., 2018). While there are exceptions, the findings are largely the same.

Dimension 2: Spirituality

The concept of spiritual care is defined in various contexts. For instance, it has been defined as a) generating a trusting staff-patient bond, b) providing and facilitating a caring spiritual milieu, c) responding to spiritual and cultural belief systems of both patients and families, d) recognizing the value of 'presence' or curative use of self, e) showing kindness by offering practical nursing care, and f) incorporating religiousness into a patient's health plan (Jaberi, Momennasab, Yektatalab, Ebadi, & Cheraghi, 2019; Razaghi, Panah, & Nayeri, 2019). In line with the definition, it extends to involvement with patients spiritually by praying for or with them, showing interest when talking to patients, listening to and understanding their spiritual anxieties, and endeavouring to make them feel relieved of their condition (Panah & Nayeri, 2017).

In South Africa, there is limited healthcare literature that specifically focuses on spirituality and spiritual care. The limited studies tend to focus on the views of practitioners and faculty as regards spirituality and spiritual care. In fact, a seminal study on the subject was conducted by Mahlungulu and Uys (2004) in South Africa. Several studies acknowledge the prominence of spirituality and spiritual care to different issues, inter alia; HIV/AIDS, cancer, and heart disease. Considering the soaring occurrence of the HIV/AIDS deadly disease in the country, the need for spiritual care especially by patients becomes an urgent call (Razaghi et al., 2019). It is put forth by Jaberi et al. (2019) that the failure to integrate spirituality and spiritual care into the healthcare delivery system is unethical because spirituality must be seen as an integral part of human existence. Moreover, lack of interest in spirituality and spiritual care turns the entire healthcare sector into one that cannot deliver holistic and patient-centred care (Jaberi et al., 2019).

Humanizing the health care offered by most average and highly developed public health services implies considering the biological, psychological and social dimensions relating to patients' requirements. This means taking into consideration patients' spiritual and sacred persuasions or backgrounds. The recent phenomenon, which includes gradually rising multicultural outlook of the modern society and the need to support patient-care practices alongside scientific evidence (Panah & Nayeri, 2017), makes it crucial to look for new and enhanced understanding of the significance of spiritual care in an institutional setting. It is so mostly in government departments like hospitals and institutions where serious diseases are treated (Chandramohan & Bhagwan, 2016).

In line with the above, health institutions acknowledge and support the diversity of religious groups in the workplace in South Africa. In some institutions, there are places of worship, medical treatment from different belief systems is respected, and chaplains who support the spiritual well-being of patients. The results of the primary data are in line with those from the literature on spirituality. The following 4 items constituting a dimension were retained in factor analysis and are considered adequate to explain the impact of spirituality on MDR-TB patients.

Table 5: Dimension 2

1	Resources are available to staff to educate patients on different religious beliefs/traditions related to health and healing.
2	The patient's belief systems and faith are respected and the hospital and care render medical services
3	The hospital provides space for both quiet contemplation and communal worship.
4	Complementary and integrative treatments are available based on patient interest and community utilization patterns.

Dimension 3: Involvement of friends and family

In this dimension, 3 items are retained which are deemed adequate to explain family involvement as an important dimension for ensuring the management as well as the provision of patient-centred care. In Table 6, the ability of families to initiate a rapid response, their presence during codes and resuscitation, and the availability of comfortable spaces are found in this study to be critical in providing and managing patient-centred care in public health institutions. These and related variables are in line with findings from prior studies on providing patient-centred care in general.

Table 6: Dimension 3

1	A process is in place by which the family or patient may initiate a rapid response team.
2	Family members can remain with the patient during codes and resuscitation.
3	Comfortable spaces, equipped with a variety of positive diversions, are available throughout the hospital.

The literature is unequivocal about a patient-centred approach to effective healthcare delivery (Coyne, 2015; Shields, 2015). It recommends an equally beneficial partnership that must prevail between the patients and healthcare experts. Moreover, the consensus between policy-makers and other stakeholders is that healthcare personnel must enable patients must make decisions regarding their healthcare (Coyne, Hallström, & Söderbäck, 2016; Shields, 2015). The philosophies of consumer involvement and patient-centred care are incarnated in both family's beliefs- and partnership-in-care models (Coyne et al., 2016).

Family-centred care is aligned with existing principles of enablement, respecting individual self-government and acknowledgement of human rights (Shields, 2015). Accordingly, family-centred care is at the moment regarded as a superlative method of care to arrange the involvement of families in a member's healthcare around the globe (Coyne, 2015; Shields, Pratt, Davis, & Hunter, 2007; Smith, Swallow, Fenton, & Coyne, 2015). Notwithstanding the substantial research, patient-centred care and other allied concepts like family-centred care as well as the partnership-in-care continue to be incapably defined and tend to have different connotations across specialized and patient groups (Tallon, Kendall, & Snider, 2015).

Moreover, the evidence-base on the influence of family-centred care as well as partnership-in-care models is weak, and so outcomes are problematic to measure (Chandramohan & Bhagwan, 2016; Shields, 2015). Family-centred care is viewed as both a technique of care delivery and thinking that values the significant role played by the family in safeguarding the health and welfare of a family patient. It also involves preparing and delivering care to the entire family, interacting with the family about healthcare service provision (Chandramohan & Bhagwan, 2016; Coyne, 2015). Several studies (e.g. Uniacke, Browne, & Shields, 2018) concur that family-centred care is a technique relating to the arrangement, provision, and assessment of healthcare rooted in jointly valuable partnerships between healthcare service workers, patients, and families. Even though other researchers regard partnership-in-care as a belief, the consensus is that partnership is a characteristic or fundamental principle of family-centred care (Shields et al., 2007). The ground-breaking research put forth by Shelton turned into the growth of a context for entrenching family-centred care into practice (Smith et al., 2015).

Dimension 4: Environmental care

The fourth dimension is an environment that is supportive of patients' well-being. This dimension is closely related to the atmosphere in the environment in which the patient is provided care. For instance, a hospital and its environment must have a pleasant smell, have adequate parking facilities, ensure confidentiality and privacy, entertainment facilities like television, have sufficient healthcare personnel, and facilities for patients to meet with their visitors. The literature on the importance of the environment in which patients live relates well to the items in Table 7.

Table 7: Dimension 4

1	Overhead paging has been eliminated (except for emergent needs).
2	Pleasant smelling, non-toxic cleaning products are used.
3	Patients can easily find their way from the parking areas to their destination.
4	Patients are afforded privacy during check-in, changing and treatment

5	Patient rooms have views to the outdoors
6	Lounge areas are available in which patients and visitors may congregate.
7	A range of diversionary activities, beyond a television, is available to patients (and families).

Several previous research (e.g. Feo & Kitson, 2016; Fix et al., 2018; Ogden et al., 2017) contend that keeping a safe environment shows a level of concern and care for patients' welfare is as vital as other aspects of effective delivery of healthcare. Moreover, the latter studies stress that the best method to augment safety is to learn about the underlying causes of inaccuracies and then design systems of care based on such knowledge. Thus, several scholars, policymakers, and healthcare service providers are intensifying their efforts to understand as well as change environmental characteristics, components, and systems of healthcare-related to patient safety (Feo & Kitson, 2016; Rathert, Williams, McCaughey, & Ishqaidef, 2015) .

In providing patient-centred care, more emphasis in the literature has also been put on the physical environment. For some time, it has been recognised as influencing patients' care experiences and outcomes (Delaney, 2018; Ogden et al., 2017). In fact, the importance of physical environment was stressed by Florence Nightingale who identified the quality and cleanliness of the environment as critical elements to patients' recovery (Delaney, 2018; Fox & Reeves, 2015; Rathert et al., 2015). The physical environment must work hand in hand with cultural values in care to realise patient-centredness care. There are two aspects of the physical environment requiring special attention, namely; built and aesthetic environments (Fix et al., 2018; Vincent et al., 2016).

In South Africa, most healthcare facilities are designed and constructed with 'clinical efficiency' rather than patient-centredness as the focus (Loveday, Padayatchi, Voce, Brust, & Wallengren, 2013; Stewart, 2001). The literature also indicates the despotism of contamination control and safety programmes in several countries and how they add to the situation of depersonalisation. Moreover, in some healthcare environments, flowers, plants, paintings are not allowed. On the other hand, efforts are being made to transform the status quo by ensuring that the designs of new healthcare infrastructure assume a more patient-centred approach (Salisbury et al., 2018; Vincent et al., 2016). In light of the status quo, all patients and healthcare personnel expect patient-centred and consider how existing environments can be enhanced.

Engaging in initiatives that transform the status quo has become a global phenomenon (Fix et al., 2018). For instance, in the United Kingdom, the King's Fund (London) initiated one programme called 'Enhancing the Healing Environment Programme (EHE). The idea behind this initiative is to inspire and empower local teams in hospitals to join hands with patients and families to raise the standard of the environment in which they are delivering healthcare services. It offers small allowances to teams across different disciplines to help them collaborate to transform the physical environments where patient-care is delivered (Salisbury et al., 2018).

An assessment of initially subsidised programme reveals the therapeutic and economic advantages of some environments. The changes involve an integrated interior design and artwork project embarked on as part of renovating the emergency department and waiting areas at the main public healthcare institutions. Several hospitals adopted the EHE principles all over the United Kingdom. The results from the efforts include evidence of the effects of aesthetics on the well-being of patients like a decline in vicious incidents occurring in mental healthcare units. Several scholars (Delaney, 2018; Fix et al., 2018; Salisbury et al., 2018) concur that those designs which comply with EHE principles provide patients with the opportunity to choose environments that are positive for privacy and social intercourse or therapeutic engagement (Salisbury et al., 2018).

Several related design initiatives are recorded in built-up care settings especially those designed for disabled and individuals with living with dementia (Delaney, 2018). The modern-day care institutions target being similar to home environments and focus on inclusive open-plan kitchen/dining/living spaces (Ogden et al., 2017). Other designs include distinct ensuite rooms that are designed with personal belongings and furniture, and decrease or exclusion of apparent 'hospital like' arrangements with nurses' stations and offices, as the focal point of the care setting. Such designs are quite common in western countries (Delaney, 2018) and have not been introduced in healthcare establishments in South Africa.

Another consideration relates to the aesthetic environment. Significant progress is taking place to ensure that healthcare environments are aesthetically attractive and that they support healing, nurturing, care, a feeling that they are in the right place and sensory engagement (Delaney, 2018; Ogden et al., 2017). The latter qualities are vital for

both patient and personnel resurgence. It is also critical that photographs, figurines, and any installations are strategically positioned for both sensory and emotional stimuli (Salisbury et al., 2018). In decorating the environment, the literature advises the use of multiple colours, lights, sounds, and smells can stimulate relaxation. Moreover, the assimilation of performance art with healthcare practice is the latest development gaining popular (Fix et al., 2018). Studies relating to maternity services, individuals with dementia, and individual that sustain with head injuries have revealed positive a therapeutic impact of combining health and the arts (Feo & Kitson, 2016; Ogden et al., 2017; Vincent et al., 2016). However, there is no literature specifically relating to aesthetics and MDR-TB patients.

Fix et al. (2018) submit that patient-centred care needs a continued commitment to facilitating various facets of culture change in healthcare organisations. Nevertheless, notwithstanding several instances of benign projects, it remains a challenge to embed patient-centredness in team, unit, and organisational cultures. In closing this subsection, several researchers e.g. Ekman et al. (2015); (Rathert et al., 2015; Richards et al., 2015) admit that in a world of reality, the concept and practice of patient-centred care remains elusive. The latter concludes that the whole agenda of patient-centred care is simply a buzz term or process.

Dimension 5: Continuity of care
This final dimension is concerned with the quality of care over time. It relates to the process by which the patient and healthcare teams are willingly involved in the continuing healthcare situation to attain a common purpose of ensuring high quality as well as cost-effective medical care. Based on the primary data, families and patients are involved in rounds and change of shifts. At the same time, languages understood by all stakeholders are used to ensure a common understanding of instructions.

Table 8: Dimension 5

1	Patients and families can participate in rounds.
2	Patients and families can participate in a change of shift reports.
3	Plans of care are written in language that patients and families can understand.
4	Processes are in place to reinforce and assess comprehension of information and instructions provided at discharge.

Continuity of care means exchanging, organizing, and incorporating medical information between different healthcare providers to sustain patient care through multiple points in time and care settings (Delaney, 2018; Ogden et al., 2017). It is accepted as one critical aspect of patient-care quality. The literature on continuity of care stress that it is the promise and primary purpose of family medicine and is in line with quality patient care delivered via patient-centred medical institutions (Fix et al., 2018; Sheaff et al., 2015). Several studies (e.g. Guthrie, Saultz, Freeman, & Haggerty, 2008; Haggerty, Roberge, Freeman, & Beaulieu, 2013; Nyweide et al., 2013; Sheaff et al., 2015) found that it helps healthcare personnel to gain patients' confidence and enables them to be more effective patient advocates. It is entrenched in a long-standing patient-healthcare staff partnership in which healthcare staffs understand the patient's past from experience and integrate latest information and conclusions from a whole-person view without wide analysis or record review (Richards et al., 2015; Salisbury et al., 2018).

Continuity of care is expedited by a healthcare-led and team-based approach to health care. Several studies found that continuity of care reduce disintegration of care and, thus, augments patient safety as well as the quality of care (Guthrie et al., 2008; Hjortdahl, 2001). The literature shows that up to 80% of serious medical mistakes occur because of miscommunication during transitions of care between healthcare providers (Nyweide et al., 2013). This leads to events that are adverse, increasing the number of hospital readmissions, needless duplicate of care, and incurring higher costs.

Conclusions

In view of the findings presented above, the following conclusions are made:

In terms of the profiles, we conclude that most MDR-TB patients in Mpumalanga are black people (97.3%) compared to whites constituting the remainder. We also conclude that MDR-TB affects everyone in the same regardless of gender. This is because the gender distribution of participants shows that 49.4% are males and 50.4%

are females with MDR-TB in Mpumalanga. Furthermore, the study concludes that 5 dimensions constitute a patient-centred care framework for MDR-TB patients. The dimensions are coordination and integration, spirituality, involvement of friends and relatives, environmental care, and continuity of care. Although patient-centred care frameworks for patients, in general, comprise more than 5 dimensions of patient-centred care, the framework specifically for MDR-TB is complete with the 5 dimensions stated above. Thus, in order to provide and manage patient-centred care, management of healthcare institutions must pay special attention to the 5 dimensions even if the other dimensions may not be ignored.

Limitations and further research

This study has the following limitations:

- The study was confined to one province in South Africa. Such a limitation may impact on the generalisability of the results because other racial groups dominating other provinces did not have the opportunity to participate in the study. For instance, Indians in KwaZulu Natal and Coloured in the Western Cape;
- This cross-sectional study was conducted over a relatively short time to meet academic requirements. This limits the depth and profundity of the study. A longitudinal study could have shed more light on the phenomenon that was being examined;
- The study focused on public healthcare institutions in Mpumalanga. The limitation is that some patients visit private health institutions because they can afford it. Such a category has not had the opportunity to participate to understand what it is that constitutes patient-centred care from their perspective.

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