



How do customers and pharmacists experience generic substitution?

Generic
substitution

375

Liz Gill

The University of Sydney, Sydney, Australia

Anu Helkkula

Aalto University, Aalto, Finland

Nicola Cobelli

University of Verona, Verona, Italy, and

Lesley White

The University of Sydney, Sydney, Australia

Abstract

Purpose – The substitution of generic prescription medicines for branded medicines is being practiced in most westernised countries, with evidence of a strong focus on evaluating and monitoring its economic impacts. In contrast, the purpose of this paper is to explore the generic substitution experience of customers and pharmacists in a pharmacy practice setting.

Design/methodology/approach – The study applied a phenomenological method using the narrative inquiry technique combined with critical event analysis, in order to understand the generic medicine experience as perceived by customers and pharmacists as key substitution actors. Interviews were conducted with 15 pharmacists and 30 customers in Australia, Finland and Italy, using a narrative inquiry technique combined with critical events and metaphors.

Findings – The findings show that customers, with poor awareness of generic prescription medicine when offered as a substitute, were likely to become confused and suspicious. Pharmacists related how they felt challenged by having to facilitate generic substitution by educating unaware customers, in isolation from both the prescribing doctor and the government/insurer. They also experienced frustration due to the mistrust and annoyance their customers displayed.

Social implications – The findings suggest that to increase generic substitution, open dialogue is paramount between all the participants of this service network, along with the development of targeted promotional materials.

Originality/value – Little is known about how customers and pharmacists experience the service phenomenon of generic medicine substitution. This paper explores how the key actors at the point of substitution make sense of the process. Additionally, the methodology provides a technique for obtaining a deeper understanding of both the customer and pharmacist experience of generic medicine, along with insights into how the uptake of generic medicine might be improved.

Keywords Australia, Finland, Italy, Consumer behaviour, Medicines, Generics

Paper type Research paper



Introduction

A generic drug is defined as one that has the same ingredients as the original, or brand-name prescription drug (Iosifescu *et al.*, 2008). Generic drugs contain the identical chemical as brand-name drugs. Generic drugs are marketed when their brand-name equivalents come to the end of their patent life at a fraction of the cost. The advantage

of generic prescription drug use is its price benefit both to the customer and government (Rizzo and Zeckhauser, 2009). Governments, through their healthcare policies, have supported the use of generic drugs as a means of cost containment, thereby ensuring that a generic medicine is marketed at a price less than the branded drug (Banahan and Kolassa, 1997); and most community pharmacists, as a consequence, are practising generic substitution (Al-Gedadi and Hassali, 2008).

The substitution of generic medicines for branded medicines is of significance to: customers, due to the opportunity it creates to save money; community pharmacists, because of their responsibility to facilitate generic substitution and at the same time manage a business; governments, which aim to reduce the rapid growth in public pharmaceutical expenditure; and the pharmaceutical industry, as a result of the loss of sole proprietary rights when a patented medicine can be produced as a generic by a number of other manufacturers. Generic substitution is an international phenomenon, with Al-Gedadi and Hassali (2008) pointing out that it is being practiced in most westernised countries. Generic prescription drug substitution occurs within a personal selling context in the pharmacy (Mott and Cline, 2002; McDonough and Doucette, 2003), and it has been shown to be influenced by such factors as branding (Patel *et al.*, 2009) and habit formation (Lambert *et al.*, 2003; Steinman *et al.*, 2007). Researchers have studied the generic substitution process using largely quantitative methods, so little is known about how the key actors at the point of substitution – the customers and the pharmacists – experience the substitution process. Understanding their subjective, context-specific experiences (Holbrook and Hirschman, 1982; Bury, 2001) will provide information that could be used to address impediments to the uptake of generic substitution.

From the late 1970s, pharmacy practice studies have demonstrated that substitution of brand-name drugs by generic drugs is increasing (Banahan and Kolassa, 1997). Studies since the 1980s have focused on comparing the views of customers, physicians and pharmacists, and examined their attitudes, perceptions of risk and knowledge of generic medication (Bearden and Mason, 1980; Schommer and Wiederholt, 1997; Gaither *et al.*, 2001; Papsdorf *et al.*, 2009; Liow, 2009; Chua *et al.*, 2010). However, the majority of studies on generic drug substitution have been conducted in the USA (Al-Gedadi and Hassali, 2008).

Following the exposition of bribery of US Federal Drug Authority officials; the provision of false data by two US drug companies; poor manufacturing practices (for example, substandard generic epilepsy drugs); and other unethical organisational behaviours within the generic drug industry in 1989 (Al-Gedadi and Hassali, 2008), the issue of the equivalence of brand and generic medications was added to the international research agenda. More recent research indicates that the rate of generic substitution has continued to increase, especially as the practice of generic substitution has been facilitated by health administrations in many westernised countries (Ess *et al.*, 2003; Ioannides-Demos *et al.*, 2002; King and Kanavos, 2002; Lofgren, 2004; McGavock, 1997). Garattini and Tediosi (2000) undertook a comparative analysis of generic markets in five European countries (France, Germany, Italy, The Netherlands and the UK) and found that generic share varied from 3 percent for France to 40 percent for the UK. In Australia, the share of prescription generic medicine has been reported as 25 percent (Beecroft, 2007) and in Finland as 90 percent (Heikkilä *et al.*, 2007).

This is the first study undertaken in the area of generic substitution that applies a phenomenological approach to the investigation of the subjective experiences

of customers and pharmacists in Australia, Finland and Italy. The Australian, Finnish, Italian collaboration on this study resulted from the researchers' attendance at a conference session on the use of narrative to study experiential phenomenon. The researchers together identified generic substitution as an area where limited attention has been paid to subjective customer and pharmacist experiences, especially given that substitution is practiced in most westernised countries. Further, only a small number of prescription drug studies that have used an interpretative approach were identified in the literature (DeLorme *et al.*, 2007; Lindberg and Lindberg, 2008; Patel *et al.*, 2009; Sharrad and Hassali, 2010). This study focuses on five pharmacists and ten customers from each of the three countries, to understand how they made sense of the substitution event (Bury, 2001). The findings are then discussed in the context of previous research, along with implications for further research and practice, and the limitations of using narrative to study such a phenomenon.

Generic medicine substitution in Australia, Finland and Italy

Prescription medicines in Australia, Finland and Italy are government subsidised, with generic medicines costing the public purse less than their branded equivalent. Whilst there are differences between these countries in the prescribing, substitution and pricing policies and regulation mechanisms for generic medicines, all three governments continue to sponsor their uptake. Significant differences are evident between the three countries in the market share of generic prescription drugs which, it is suggested, are potentially due to the different approaches the respective governments have adopted. In 1994 in Australia, changes were introduced to permit pharmacists to substitute generic prescription drugs if they were listed on the Schedule of Pharmaceutical Benefits, yet by 2001 generics accounted for only 20 percent of all prescriptions filled, and by 2004/2005 it had grown to only 25 percent (Beecroft, 2007). When compared with other comparable countries, this percentage is relatively low (Lofgren, 2004).

Generic drug substitution was formally introduced into Finland in 2003 (Aalto-Setälä, 2008); it had however been brought in as a voluntary form in 1993, but because of insignificant use, it was abandoned in 1996 and was replaced by generic prescribing which in turn was also rarely used (Martikainen and Rajaniemi, 2002). The 2008 reform was implemented through the Finnish regulatory authority setting the maximum wholesale price and retail markup for government reimbursed pharmaceuticals, so where a prescribed drug is more expensive, the pharmacist must recommend generic substitution to their customer (Heikkilä *et al.*, 2007). According to the Association of Finnish Pharmacies, only one out of ten customers refused to substitute the prescribed brand medicine for a generic (Heikkilä *et al.*, 2007). However, in April 2009, Finland withdrew the subsidy for brand medicine where a generic medicine alternative is available, unless specified by the doctor. This is expected to further increase the uptake of generic medicines.

In 1996, Italy launched generics with Decreto Legislativo 323, requiring the price of generics to be 20 percent lower than patented drugs; and in 2001, pharmacists were given the right to substitute. Yet, despite structural reforms to increase competition between equivalent products, the generic share of public pharmaceutical expenditure has remained largely unchanged (Ghislandi *et al.*, 2005). Statistics published by the Italian Medicine Agency (Agenzia Italiana del Farmaco) in 2008, show that the substitution of generics had grown to 49 percent, from 33 percent in 2002.

Ultimately, in all three countries, it is the community pharmacist at the point of sale who has the key role of facilitating the substitution process.

Customer perspectives on generic medicine substitution

Hassali *et al.* (2009) identified 20 customer-focused studies concerning generic medicines that had been conducted between 1970 and 2008. Some of these studies demonstrated that both affordability and access were key dimensions that customers used to develop their attitudes about drug benefits, and that poor physician communication skills could be used to predict negative customer generic drug beliefs (Deselle, 2001; Motheral and Heinle, 2004). Customer resistance arises due to poor understanding of the main concepts behind generic medication, especially when customers, used to particular drugs, are introduced to an equivalent drug that has a different name and appearance (Al-Gedadi and Hassali, 2008). In their customer study, Ganther and Kreling (2000) found that the proportion of respondents who perceived that generic prescription drugs were riskier than brand-name drugs was dependent on their health condition. Further, customer preferences have been shown to have a significant influence on doctors' prescribing practice (Kravitz *et al.*, 2005), and counselling customers about generics has demonstrated a greater uptake of these drugs (Ganther and Kreling, 2000; Himmel *et al.*, 2005; Pereira *et al.*, 2005; Vallès *et al.*, 2003; Van Wijk *et al.*, 2006), with general medical practitioners being in an ideal position to reduce customer anxiety about generics (Ringuier *et al.*, 2008).

Pharmacist perspectives on generic medicine substitution

Schommer and Wiederholt (1997), Nørgaard *et al.* (2001) and Mott and Cline (2002) argued that understanding the behaviour of pharmacists must take into account their perceptions and opinions. A study by Allenet and Barry (2003) describing French pharmacist opinion and actual behaviour regarding generic drugs, found that 68 percent of pharmacists considered substitution to be difficult, and of the 90 percent of participants who had a positive opinion of generic drugs, only 43 percent practiced systematic substitution. Al-Gedadi and Hassali (2008), in their literature review, identified four factors that influenced a pharmacist's view and practice of generic drug substitution: economic and commercial factors, quality and bioequivalence, risk of harm to the customer and price differentials. They also identified the significance of the time costs involved in promoting generics, along with the impact that doctors, customers and public health officials had on pharmacists' views and behaviour. They concluded that on the whole pharmacists were supportive of generic substitution because their substitution role afforded them recognition for their drug knowledge and professional expertise.

Method

The purpose of this research was to explore the generic medicine substitution experience of customers and pharmacists in a pharmacy practice setting. In this study, we were interested in customer and pharmacist subjective experiences and how they made sense of them. In order to capture the subjective experiences of customers and pharmacists, we listened to both groups and how they, at the point of substitution, experienced the substitution event. The method adopted was the narrative inquiry technique combined with critical event analysis (Webster and Mertova, 2007; Helkkula, 2010).

The use of narrative provides a means of investigating the subjective experience of customers, thereby providing insights into their “lifeworld” (Bury, 2001; Pottie *et al.*, 2008). Yet, what individuals convey through their narratives cannot be interpreted as impartial accounts (Bury, 2001; Goulding, 2005), because their stories are interpretations of their experiences in a specific situation and context. The research questions focused on identifying the storytellers’ subjective, holistic experiences with the phenomenon of generic prescription medicine substitution. Participants were asked to recall an event they had with offering (pharmacist) or being offered (customer) a generic medicine, and to relate their experience describing what was critical, that is either positive or negative about it. In order to generate an imaginary experience, participants were then asked to explain what that incident would look like if a magic wand (Helkkula, 2010) were used to make it a perfect event for them.

Each author conducted individual unstructured interviews with customers and pharmacists in their respective country in their native language. In addition, metaphors were used as a projective technique to generate service ideas based on the needs and wants of customers and pharmacists (Helkkula, 2010). Bissell *et al.* (2006) argued that the use of narrative in pharmacy practice research can provide a greater understanding of the customer’s motivations towards their medicines and insights into the pharmacist’s role, including how these key actors make sense of the service experience. The information and consent forms used to recruit subjects to the study were approved by the Ethics Committee of Sydney University. Each researcher recruited their pharmacist participants from separate community pharmacies in their local area, through personally visiting each pharmacy and inviting a pharmacist to participate. Customer participants were then recruited through the manager of those community pharmacies (Australia and Italy) and directly with face-to-face contacts (Finland). Five pharmacists and ten customers were interviewed by the researchers in each of the cities of Sydney (Australia), the greater Helsinki area (Finland) and Verona (Italy) in May 2009. The Appendix provides information about the characteristics of the participants.

Each interview was recorded and transcribed and the data were sequentially analysed after each interview. Critical and imaginary events were used as a means of eliciting rich descriptions of each participant’s experience; and no a priori categories were created for the analysis. Notes about each participant and the interview process were used to assist with this interpretation. Significant transcript was highlighted, coded and then categorised into responses reflecting the key themes for each of the two groups of participants. Validity was ensured by first, the findings being derived from the data, through each researcher independently undertaking her own data’s analysis, and second, through the comparison of the three sets of results by each researcher with the aim of achieving consensus. Agreement in the emerging main themes across the three countries was reached, with the researchers identifying the significance of the themes, based on collectively determining their relative identified importance. Adequacy was used to ensure the reliability of the findings (Glaser, 1978).

Findings

Customer experiences

The customer experiences were categorised based on how people viewed generic medicines compared to branded medicines. Interpretative inductive analysis of the data identified three aspects of sense making as illustrative of customer confusion with

generic medicine substitution, with each aspect presenting as a range: unawareness to awareness, confusion to confidence and suspicion to trust. The categories emerged from the inductive analysis of the data, and directly relate to human relationships. Table I presents a summary of the extracts from the interviews with customers.

Customer unawareness to awareness. Customer unawareness was most common when a customer was offered a generic option for the first time or where they were experiencing a new illness. In the customer stories, unawareness led to confusion and suspicion, with the findings indicating that customers could be divided into two discrete groups, those who were unaware and those who were aware of the overall concept of generics but were still experiencing reluctance when exposed to a new type of medicine or disease in their own experiential realm.

Customer confusion to confidence. The key theme identified for the Australian, Finnish and Italian customer experience was confusion related to why they were being offered something that appeared different to what their doctor had prescribed. Even knowledgeable customers described how initially they were uncertain and had asked about the quality and efficacy of the generic. In Finland and Italy, even customers who had agreed to generic substitution still indicated that they had wanted to check the suitability of the generic product with their doctor.

Customer suspicion to trust. Customers interviewed tended to become suspicious. Finnish and Italian customers explained how they trusted their doctor and wondered why the pharmacist was recommending generic substitution; most had concluded that the reason for the pharmacist behaviour was associated with a resultant economic benefit. In Australia, most customers felt that the motivation for both the doctor and pharmacist behaviour was also related to the economic benefit that resulted.

Many customers evidenced misconceptions about generics and generic manufacturers which highlighted the need for integrated health system information for customers. Customers explained how they thought they understood why the pharmacist was recommending generic substitution; and they believed they knew why the doctor was writing a script for a particular brand, but there was nowhere they could go to get the “real story”.

Customer views of how generic substitution would ideally take place. On the basis of their needs and wants, customers related their ideal experiences with the metaphor of a magic wand being used to elicit their ideal solutions (Helkkula, 2010). Australian customers specifically highlighted their need to know the facts about generics. On the other hand, Finnish and Italian customers clearly outlined a wish for better service co-creation between doctors and pharmacists, so that they would not experience anxiety associated with opting for the generic substitute:

I would like to have much better knowledge about generic medicines (C4 Australia).

Certain medications I don't get offered a generic so I assume there is no generic available, but I wonder about this (C7 Australia).

It would be good if the doctors would not prescribe medicine brands, just the important ingredients. Then the pharmacist could choose the best option for the customer and I would not need to bother with the change (C5 Finland).

Why don't doctors and pharmacist get together to figure out the best medicine for me? Why do I need to go through this fuss? (C9 Finland).

Findings	Illustrative extract from data	In relation to previous literature
<p><i>Unawareness to awareness</i> Customers described how initially they were uncertain and had asked about the quality and efficacy of the generic</p>	<p>“I was cautious when the pharmacist offered generics for the first time. I searched for information on generics on the web and also asked some friends who work as doctors. I also asked my GP for his opinion. I wanted to know [...] it took 6 months for me to start using generics” (C6 Italy)</p> <p>“I asked a few questions about its effectiveness and why it was being offered” (C3 Australia)</p> <p>“I was offered the generic option and I agreed to it. However, I was still not quite sure, and the next time I met my doctor. I asked him if the medicine I took was ok” (C5 Finland)</p>	<p>Accurate knowledge is the prerequisite for customers making informed decisions about products and services (Estelami, 2005; Walsh and Mitchell, 2005; Heikkilä <i>et al.</i>, 2007; DeLorme <i>et al.</i>, 2007; Pottie <i>et al.</i>, 2008; Sharrad and Hassali, 2010)</p>
<p><i>Confusion to confidence</i> Customers were being offered something that appeared different to what their doctor had prescribed</p>	<p>“My doctor had just told me that I have a chronic disease and prescribed medicine [...] and then you get different information [at the pharmacy [...]].” (C1 Finland)</p> <p>“I’m not sure that generics are as good as normal medicines. My pharmacist offers generics every single time I give him the prescription” (C1 Italy)</p> <p>“[About being offered generics] I didn’t really understand what was going on” (C2 Australia)</p>	<p>Customer resistance arises due to poor understanding of the main concepts behind generic medication, especially when customers, used to particular drugs, are introduced to an equivalent drug that has a different name and appearance (Brodell <i>et al.</i>, 1997; Lambert <i>et al.</i>, 2003; Al-Gedadi and Hassali, 2008; Hassali <i>et al.</i>, 2009; Patel <i>et al.</i>, 2009; Liow, 2009; Sharrad and Hassali, 2010)</p>

(continued)

Table I.
 Summary of findings:
 customer experience of
 generic substitution

Table I.

Findings	Illustrative extract from data	In relation to previous literature
<p><i>Suspicion to trust</i> Customers tended to become suspicious about the quality of generic medicine and the motives of pharmacists and doctors</p>	<p>“(I was) wondering why it was being offered [...] I think it is more profitable to the pharmacist [...] and doctors write brand scripts because they get gifts from the drug company representatives who they have contact with” (C8 Australia) “The pharmacist just kept on telling me that the generic medicine was the same. But I know it is not the same – not exactly the same. I had heard that there are differences. I became irritated that the pharmacist could not admit that they are not the same” (C3 Finland) “There must be some advantages for pharmacists (in offering generics). Some of them are so insistent” (C1 Italy)</p>	<p>Negative beliefs and views about generics were associated with poorer socio-economic status and health literacy (Haskins <i>et al.</i>, 2005; Carvalho <i>et al.</i>, 2006; Kjoenniksen <i>et al.</i>, 2006; Iosifescu <i>et al.</i>, 2008; Papsdorf <i>et al.</i>, 2009; Iosifescu <i>et al.</i>, 2009; Hassali <i>et al.</i>, 2009; Patel <i>et al.</i>, 2009; Sharrad and Hassali, 2010)</p>

I didn't have any traumatic experience with generics but the Department of Health should distribute free brochures to inform on generics advantages and disadvantages. The Department should also create a web site (C6 Italy).

There should be more intense cooperation between doctors and pharmacists. They should speak the same language (C4 Italy).

Pharmacist experiences

Pharmacists' challenge to educate their customers. In the three countries, all of the pharmacists interviewed were community pharmacists in different pharmacies, and their experiences mirrored the customers' experiences, with the key theme identified for the pharmacist experience being the professional challenge required to educate customers. Pharmacists spoke of the length of time it took to instruct a "resistant" customer, and the complexity involved with a customer using multiple medications or suffering a mental illness or dementia. Table II presents a summary of the extracts of interviews with pharmacists.

Pharmacists' frustration. Australian and Italian pharmacists experienced frustration when a customer would not accept that the generic was equivalent to the branded medicine. Some pharmacists in Australia and Finland related how they had experienced customer annoyance when they offered the generic.

Pharmacists' experienced mistrust from their customers. Pharmacists also acknowledged the mistrust customers experienced towards them. They see this as challenging their professionalism, and highlighting a lack of support from both doctors and the government concerning the education of customers.

Pharmacist views of how generic substitution would ideally take place. On the basis of their experiences, pharmacists generated ideal solutions, with a magic wand being used metaphorically to encourage "out of the box" thinking. Pharmacists spoke of doctors as a significant barrier to the uptake of generic medicines, explaining how they did not co-operatively work with pharmacists. They described the potential solution as being a change in doctor behaviour, with doctors working with pharmacists to educate customers about generic medicines, and explaining how customers could be informed about generic substitution by both the doctor and the pharmacist:

Ideally the doctor would support generic use [...] and educate their customers about them (P1 Australia).

Doctors would be totally informed and write scripts generically, and leave the decision about what to dispense to the pharmacist (P4 Australia).

The doctors could explain to the patient that there is a generic option, so they would not be surprised when offered it at the pharmacy (P4 Finland).

Some doctors just prescribe the brand medicine and do not bother to keep themselves updated with the changing options of generic medicine (P3 Finland).

Working with some doctors is still a challenge. Old-style GPs are not used to work in teams. They're always right. If we spoke the same language, our patients would feel safer (P4 Italy).

We (GPs and pharmacists) have different competencies but we have the same target, helping sick people. Of course, we also have to sell products but I think that there would be no conflict of interest in our cooperating (P5 Italy).

Table II.
Summary of findings:
pharmacist experience of
generic substitution

Findings	Illustrative extract from data	In relation to previous literature
Pharmacists required to educate customers about generics	<p>“Many customers believe that the generic is not as good as the one the doctor has written down [...] the initial conversion is the most difficult and time consuming as it often involves the customer changing from a drug they know and have some loyalty to” (P1 Australia)</p> <p>“Sometimes I just don’t even try to offer more options to a customer who is old and has challenges even to buy medicine, like those who have dementia. As they don’t always remember to take their tablets, and then if the tablets change, like a different colour and amount, it doesn’t make it any easier” (P5 Finland)</p> <p>“When I offer generics I wish to provide a service. Some patients don’t appreciate it. They are suspicious and think that we want to take advantage of them” (P1 Italy)</p> <p>“If they have reasoning that doesn’t make any sense and they think the generic is an inferior thing, then not being able to explain it so they understand can be really frustrating [...] particularly where some customers can become quite aggressive or rude” (P4 Australia)</p> <p>“Even when the customer is unwilling to listen, I will need to offer the generic option anyway” (P4 Finland)</p> <p>“Sometimes patient can be very reluctant with generics [...] they look down on your suggestions and are afraid you are pushing the product for your benefit” (P1 Italy)</p>	<p>Pharmacist recommendation is an important reason for customer acceptance of substitution (Vallés et al., 2003; Carvalho et al., 2006; Heikkilä et al., 2007)</p> <p>Pharmacists should spend time with their customers to explain and advise them about generics and also reassure them (Bearden and Mason, 1980; Perriand Wolfigan, 1993; Vallés et al., 2003; Liow, 2009; Carvalho et al., 2006; Beecroft, 2007; DeLorme et al., 2007; Al-Gedadi and Hassali, 2008; Pottie et al., 2008)</p>
Pharmacists experienced frustration when a customer was suspicious and would not accept the generic option	<p>Confused customers are less likely to make rational buying decisions and may fail to choose products offering the best quality or value for money (Mitchell and Papavassiliou, 1999)</p> <p>In the health sector, due to its complexity, many customers, especially the elderly and less educated, are unable to discriminate between alternatives (Schommer, and Wiederholt, 1997; Cohen, 1999; Beecroft, 2007; Iosifescu et al., 2008; Patel et al., 2009)</p>	<p>Confused customers are less likely to make rational buying decisions and may fail to choose products offering the best quality or value for money (Mitchell and Papavassiliou, 1999)</p> <p>In the health sector, due to its complexity, many customers, especially the elderly and less educated, are unable to discriminate between alternatives (Schommer, and Wiederholt, 1997; Cohen, 1999; Beecroft, 2007; Iosifescu et al., 2008; Patel et al., 2009)</p>

(continued)

Findings	Illustrative extract from data	In relation to previous literature
Pharmacists acknowledged that they experienced customer mistrust and annoyance towards them	<p>“Despite having spent time telling them that generics are equivalent, about 50 percent of customers still want to talk to their doctor about it” (P3 Australia)</p> <p>“Sometimes when I offer a generic option, I notice that the customer mistrusts me” (P5 Finland)</p> <p>“I always try to suggest generics. They’re good products and can really help save money. Sometimes it’s embarrassing when you realize they (patients) think that you are offering something more convenient for yourself” (P3 Italy)</p>	<p>Trust has been characterized as the cornerstone of a service relationship, since it arises from the customer’s experience with the service (Gummesson, 1999; Carvalho <i>et al.</i>, 2006; Patel <i>et al.</i>, 2009)</p> <p>Confusion and unawareness have been identified as symptoms of poor trust in both healthcare (Strutton <i>et al.</i>, 1992; Mott and Cline, 2002; Andersson <i>et al.</i>, 2003; Carvalho <i>et al.</i>, 2006; Iosifescu <i>et al.</i>, 2008; Patel <i>et al.</i>, 2009) and management settings (Seaman, 1997)</p>

Table II.

Figure 1 shows the findings of customers' and pharmacists' experiences and their interrelatedness:

- pharmacists need to educate their unaware customers;
- pharmacists became frustrated by their confused customers; and
- pharmacists became professionally challenged by their mistrusting, suspicious and annoyed customers.

Discussion

The impetus to understand the process of generic prescription medicine substitution has been growing, in line with the objectives of governments to contain the increasing costs of publicly funded healthcare (Lofgren, 2004; Hassali *et al.*, 2006). In recognition of this need, this study explored the generic substitution experience of customers and pharmacists in a pharmacy practice setting. The analysis provides evidence of the difficulties faced by pharmacists in having to spend considerable time educating their confused customers, in isolation from both the prescribing doctor and the government/insurer. It depicts how pharmacists are having to assist customers who are unaware of the rigorous government regulations that ensure the quality, safety and efficacy of all medicines including generic prescription medicines. Support for this finding can be found in a literature review of pharmacist views on generic medicine, which identifies customer confusion as a key issue faced by pharmacists (Hassali *et al.*, 2009). This study highlights that pharmacists feel professionally challenged and frustrated with having to deal with customer suspicion, annoyance and mistrust resulting from customer confusion. Further, pharmacists related how they were experiencing little support for generic substitution from the prescribing doctors.

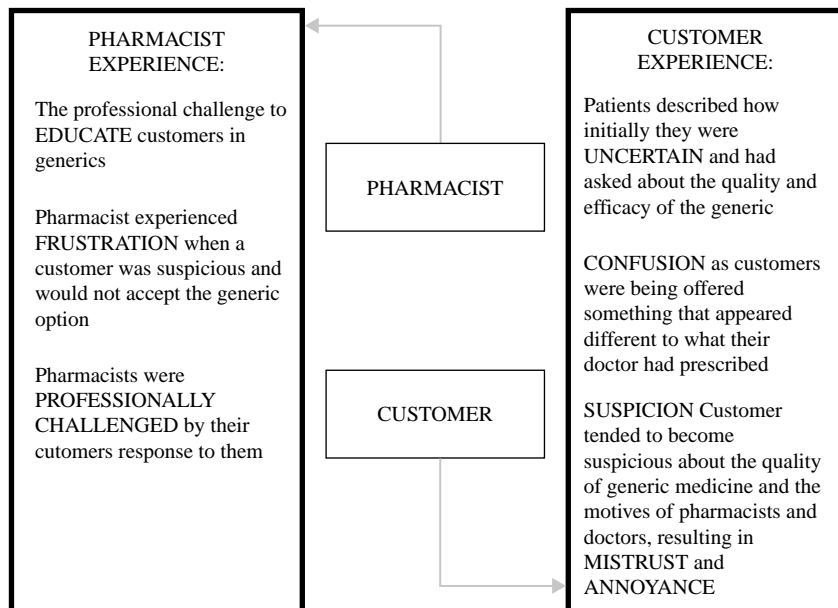


Figure 1.
Graphical representation
of the main findings

This finding is supported by a study by Hassali *et al.* (2006), which concluded that improving general practitioner knowledge about the efficacy and safety of generic medicines was required if the current level of generic prescribing in Australia was to be increased.

Customer awareness has been largely studied in the context of price awareness, with this literature highlighting that accurate knowledge is the prerequisite for customers making informed decisions about products and services (Estelami, 2005). Estelami (2005) points out that an informed customer can be identified as one with a high level of price awareness who can understand and assess the value of a service offering, in contrast to the uninformed customer who is vulnerable and unable to distinguish between the offerings. Further, complexity has been identified as a major source of customer indecision as customers might not be aware of the key attributes on which they should focus and as a consequence they will commonly seek out additional information (Leek and Kun, 2006; Sharrad and Hassali, 2010). Macdonald and Uncles (2007) identified that aware customers were demanding, active and empowered. Yet, in this study even the participants evidencing awareness of the principles underlying generic substitution described how initially they were uncertain and had asked about the quality and efficacy of the generic drug. Heikkilä *et al.* (2007) investigated the attitudes, experiences and opinions of physicians and customers regarding generic substitution in Finland. They found that customer refusal to substitute was related to their familiarity and prior experience with a particular medicine, and they pointed out that pharmacist recommendation was an important reason for customer acceptance of substitution.

This study identified that customer confusion was particularly evident through their uncertainty about the quality and efficacy of the generic substitute, in particular a belief that a generic medicine was an inferior product to a branded medicine. It found that most customers do not fully understand the motivation behind a doctor prescribing branded medicines, nor a pharmacist offering a generic, though some customers interviewed did talk about the potential economic incentives influencing doctors, pharmacists and government. Further, pharmacist contracts with generic suppliers are hidden from customers, and as a consequence the actual cost savings to the customer can vary significantly. The size of the difference between the patented prescription drug and its generic equivalent would, most likely, also influence a customer's substitution decision. Some customers who were interviewed indicated that where the price differential was small, they would opt for the branded medicine. These issues warrant more investigation.

The literature indicates that information overload, product imitation and product complexity have been found to contribute to customer confusion (Mitchell *et al.*, 2005), with customer confusion depicted as being a challenge for the healthcare market (Mitchell *et al.*, 2005). The complexity of this sector, including prescription medicines, results in the customer being unable to discriminate between the alternatives (Cohen, 1999). Walsh (1994) identified confusion as an uncomfortable state of mind that largely arose in the pre-purchase phase, affecting customers' information processing and decision-making abilities, and leading to customers making sub-optimal choices. Mitchell and Papavassiliou (1999) highlighted that an increase in the amount of decision-relevant information in the customer's purchasing environment created the potential for customer confusion. They proposed that the customer response to purchase confusion could be one of six types: take no action, delay or stop the purchase,

define buying goals, search for additional information, reduce the choice set, or involve a third party. Mitchell and Papavassiliou (1999) also argued that customer brand loyalty is affected by confusion, and that confused customers are less likely to make rational buying decisions and may fail to choose products offering the best quality or value for money. Beecroft (2007) points out that this is particularly applicable to older people who are the largest and the fastest growing group of prescription medicine user. Walsh and Mitchell (2005) found that the less educated, older female customer was more likely to experience marketplace decision difficulty, and Iosifescu *et al.* (2008) found that negative beliefs about generics were associated with lower education and income, with individuals with poorer health literacy more likely to hold negative views. Specifically, Mitchell *et al.* (2005) reported that in the healthcare sector, professional sources can undermine the accuracy of a retailer's claims, so that loyalty can therefore be viewed as a strategic reaction to confusion, and this is supported by the findings of our study. Further, they suggested that, to reduce confusion, customers may involve others in their purchase decision or delegate it.

Furthermore, in relationship marketing, trust has been characterised as the cornerstone of a service relationship, as it arises from the customer's experience with the service (Gummesson, 1999). Further, confusion and unawareness have been identified as symptoms of poor trust in both healthcare (Andersson *et al.*, 2003) and management settings (Seaman, 1997). Lau and Lee (1999) argued that customer trust was likely to be reduced where customers were confused, as they would not know which was the best alternative or which manufacturer to trust. Further, Walsh *et al.* (2007) established that a customer's susceptibility to becoming confused negatively affected their information processing and ability to make decisions.

Conclusion

This study has specifically explored the experiences that customers and pharmacists confront in the process of generic prescription medicines substitution, with the voices of customers and pharmacists from three different countries clearly similarly evidencing customer confusion when dealing with sense making of the phenomenon of generic medicine and their respective roles. Until recently, customers have played a largely passive role as recipients of prescription medicine, but with the advent of generic substitution, customers potentially have become empowered to be more active in co-creating the service. Importantly, Prahalad and Ramaswamy (2004) point out that service value is individually experienced, and co-created by the actors; with the building blocks of co-creation being dialogue, information access, risk assessment and transparency. The success of empowering the pharmacy customer has ostensibly been compromised by the inadequacy of information and the resultant uncertainty and frustration they are experiencing. Pharmacists in Australia, Finland and Italy have described how they would like to see customers well informed about generic medicines; but critically customers are not being empowered with the knowledge that is the primary prerequisite for service co-creation. The benefit of educating pharmacy customers is supported by the work of Vallès *et al.* (2003), who assessed the acceptability of substitution of brand-name drugs for generic drugs by customers with chronic illnesses in Barcelona and found that instructing customers individually, at the repeat prescribing interface, resulted in a 98.9 percent acceptance of generic substitution. Importantly, Shrank *et al.* (2009), as a result of their study of customer perceptions,

recommended further education, “rebranding” of generic medications, improved communication with prescribers, or the adoption of zero dollar co-payment programs, to increase substitution.

The study contributes to pharmaceutical and healthcare marketing research by identifying customer and pharmacist experiences expressed through their narratives. It specifically asked customers and pharmacists in three different countries to relate a critical event that they had experienced with the generic prescription medicine substitution process, in order to understand its effects. The main implication of this study is that if customer unawareness, confusion and suspicion are to be addressed, and an increase in the substitution of generic medicine is to be achieved, specific consideration must be given to determining the best means of educating customers. The customer and pharmacist stories in this study indicate that currently that role falls on pharmacists, with the task of promoting the uptake and gaining customer acceptance of generic substitution being left largely to the point of sale pharmacist. This research clearly demonstrates that pharmacists are confronted with significant resultant difficulties, as they are effectively performing this role in isolation from both the prescribing doctor and government/insurers. The pharmacists identified that there was a disconnect between them and the prescribing doctors, potentially resulting in disadvantage to the end-user.

Limitations and suggestions for further research

The results of this study should be interpreted in the context of the methodology that was employed, with differences between subjects expected and valued in the conduct of the research (Webster and Mertova, 2007). This research only involved the key actors at the point of substitution; it did not include doctors who are an integral part of the service chain, nor did it include other health professionals who have the authority to prescribe restricted medications. In addition, as the research was an exploratory study, the sample is small and it cannot be assumed to be representative of the whole Australian, Italian and Finnish populations. Accordingly, the findings can only be viewed in respect of the subjects who participated in the study. Furthermore, the study did not seek to examine the elements involved with customers who had reached the stage of being completely acceptable to generic substitution.

However, the findings clearly identify that the phenomenon of dispensed generic medicine is a service taking place in a network environment, where according to Vargo and Lusch (2008), each actor experiences the service in an individual way and as a co-created service phenomenon. In addition to customers and pharmacists, doctors and government/insurers are service network participants. In order to achieve an effective service network, this study encourages researchers and practitioners to further analyse how customers could be educated and empowered to become active consumers within the context of generic substitution. It also points to the social implications for increasing generic substitution, which could be achieved by open dialogue between all the participants of this service network. Further research could also encompass the investigation of how prescribing, substitution and pricing policies and regulation mechanisms of generic medicine influence consumer and pharmacist behaviour, and ultimately the generic medicine market share. Additionally, qualitative research should be conducted in a wider range of countries, and quantitative investigation would provide a further contribution to this field of study.

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Appendix. Description of study participants

Customers were aged between 30 and 90 years old; 60 percent were female; and 57 percent were aged over 60 (Table AI).

394

Table AI.

Customer age and gender

	31-60 years		61-70 years		71-80 years		81-90 years	
	Female	Male	Female	Male	Female	Male	Female	Male
Australia	7	0	0	0	2	1	0	0
Finland	3	1	1	1	2	1	0	1
Italy	1	1	3	1	0	2	0	2
Total	11	2	4	2	4	4	0	3

Just over half of the customers interviewed were regular users of prescription medicines (Table AII).

Table AII.

Frequency of customer prescription drug use and gender

	Occasional user		Regular user	
	Female	Male	Female	Male
Australia	6	0	3	1
Finland	2	2	3	3
Italy	1	3	3	3
Total	9	5	9	7

Pharmacists interviewed were aged between 20 and 70 years. In Australia, 60 percent were female; in Italy 40 percent were female and in Finland all were female (Table AIII).

Table AIII.

Community pharmacist age and gender

	21-30 years		31-40 years		41-50 years		51-60 years		61-70 years	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Australia	2	1	1	1	0	0	0	0	0	0
Finland	1	0	2	0	1	0	1	0	0	0
Italy	0	0	0	2	0	0	0	1	2	0
Total	3	1	3	3	1	0	1	1	2	0

Two-thirds of pharmacists interviewed owned the pharmacy in which they worked (Table AIV).

Table AIV.

Community pharmacy ownership status and gender

	Owner		Employed	
	Female	Male	Female	Male
Australia	2	2	1	0
Finland	1	0	4	0
Italy	3	2	0	0
Total	6	4	5	0

About the authors

Liz Gill is a PhD student at the University of Sydney, Australia. Her qualifications include a Dip. PT, BSc PT, MBA and MA. She has worked as a health professional at the direct service provision, the health system design and policy levels. Liz Gill is the corresponding author and can be contacted at: lgil9930@uni.sydney.edu.au

Anu Helkkula, PhD, works in the Institute of Healthcare Engineering, Management and Architecture (the HEMA Institute), Finland, which is a research group that concentrates on the production of health services and their development. HEMA is part of the BIT Research Centre of the Aalto University School of Science and Technology in Finland. Her qualifications include an MSc (Economics). She received her PhD from the Hanken School of Economics, Finland, with a thesis addressing service experience in a context of service innovation.

Nicola Cobelli is a Research Associate at the University of Verona, Italy. Her qualifications include a Bachelor's Degree in Business Management and Foreign Languages and a PhD in Business Administration. She has taught in undergraduate and in masters programs. Nicola's PhD is from the University of Verona with a thesis addressing consumer behaviour in a professional healthcare service context.

Lesley White works in the new field of Pharmacy Management as the Faculty of Pharmacy in the University of Sydney, Australia. Her interests focus on strategic marketing and services marketing, particularly services quality, together with small business and professional services marketing. Her qualifications include BPharm, MCom and MEd. Lesley's PhD is from the University of Sydney with a thesis addressing decision making in a professional services context.