Pharmacist Readiness for Greater Involvement in OTC Product Selection: Implications for Education

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The purpose of this study was to measure and explain pharmacist readiness to adopt a new standard of practice involving OTC products. The focus was on pharmacist self-efficacy — perceptions of the ability to perform potentially new behaviors related to assessing consumer product choices for appropriate use. The Transtheoretical Model of Change and self-efficacy theory guided the research. Questionnaires were mailed to 500 randomly selected community pharmacists in one Canadian province. Data were collected to determine: (*i*) pharmacist readiness to engage in a new standard of practice, and (*ii*) pharmacists' self-efficacy in their capabilities to do so. A response rate of 70.6 percent was realized. The majority was not ready to adopt the proposed new standard. Pharmacists less ready for change felt less qualified to assess consumer product selections. Those respondents feeling unprepared appeared to have more difficulty with the counseling process than with any drug- or condition-related issue that might arise during an encounter. Educational endeavors are needed to assist pharmacists with how to confidently and skillfully deal with some of the non-therapeutic issues of OTC counseling.

INTRODUCTION

Of all the illnesses and ailments that people are apt to acquire, minor ones are by far the most common. It is the sore feet, the colds, the upset stomachs, and the headaches that make up the bulk of all health-related complaints. Most can attest to the discomfort they cause.

People who experience such symptoms can respond in many ways. They might choose to ignore them, use a home remedy, a commercial product, or even seek professional care. The course chosen will undoubtedly depend on many factors, such as previous experience with the symptoms(1,2). It is apparent, however, that many consumers do decide to buy non-prescription medicines to relieve various ailments and go to pharmacies for these. While there, pharmacists have a responsibility to offer safe treatment and to accurately interpret symp-

toms patients might present(3-6). This is a common occurrence. Records reveal that many of the questions consumers ask of community pharmacists involve minor illnesses and OTC agents(7-10). If a nonprescription product is deemed suitable, instructions to ensure proper use will be needed (unless the patient is clear on this or will read product labeling). Fortunately, pharmacy educators have long recognized this responsibility(11) and the majority of pharmacy colleges in the U.S. (circa 1990) have courses in nonprescription drug therapy(12).

Unfortunately, in spite of what appears to be a well-entrenched professional role, several references from around the world have called on pharmacists to do more for consumers in the area of OTC product selection(4,13-17). The Guidelines on the Sale of Nonprescription Medications in Canada, for example, stated that pharmacy management should look at ways for pharmacists to become more involved in the self-medication process(4). In the U.S., a panel of pharmacists and academics concluded that pharmacists were not living up to their potential in overseeing self-medication(13).
Criticism has even involved products kept behind-the-counter (in countries where such legislation exists). At first glance, this might strike readers as a bit incredulous, given the fact that placing OTC agents behind the prescription counter is highly touted in pharmacy circles as a mechanism for almost guaranteeing consumer-pharmacist interaction. Yet, data suggest minimal pharmacist involvement in countries that currently have a pharmacist-only (No Public Access; NPA) class of medicines(18-21).

As a result of what could be considered sub-optimal pharmacist involvement in Canada, new standards for OTC counseling have been proposed(22). These standards will address all OTC products - ones kept out front as well as those positioned behind the counter. The focus of the research presented here, however, will be on NPA OTCs. It has become apparent that in order to justify continuation of this particular OTC category, and to provide better care for users of these products, a significant increase in activity in this area will be required. Pharmacists may soon be called upon to engage more frequently in counseling on these products, be required to do more during each engagement, and document their endeavors. Whether pharmacists will adopt such changes remains unknown. The purpose of this study was to measure and explain pharmacist readiness to assess the appropriateness of consumer NPA OTC product requests. This will be accomplished using the theoretical frameworks of the Transtheoretical Model of Change and self-efficacy. To date, these concepts have not been considered in research involving NPA OTC products. Background is provided on these theories and the determinants of OTC counseling.

Transtheoretical Model of Change (TMC)/Self-Efficacy

The basic tenets of the TMC and its pharmacy applications have been reviewed elsewhere(23). While originally developed for smoking cessation and the treatment of addictive behaviors, a precedence has been set for applying the model to the professional activities of health care workers(24,25). Authors from Australia have also considered this model for examining patient misuse of OTC products(26).

In general, this theory attempts to explain when and how people adopt new behaviors. Rather than considering "change" as an all-or-none phenomenon, the TMC proposes a sequence of five stages along a continuum of readiness for change: pre-contemplation, contemplation, preparation, action, and maintenance. Each stage represents a successive increase in readiness that allows researchers to understand when shifts in attitudes, intentions, and behaviors actually occur(27). One major component of the model is a "decisional balance" and is derived by comparing the strength of perceived positive aspects of the new behavior (PROs) with perceived negative aspects (CONs)(28). The TMC hypothesizes that the balance between these opposing aspects should vary depending on which of the five stages people occupy. In the precontemplation stage, for example, individuals will judge the CONs of engaging in the new behavior as outweighing the PROs. In the action and maintenance stages, the opposite pattern will occur. These PROs and CONs should cross over around the preparation stage of change(24). Scale items are based on what people themselves report to be the positive and negative features of the behavior. Also included as scale items will be factors that potentially could act as barriers and facilitators to a new action.

As an example of how this theory has been applied, Marcus *et al.* used the TMC to determine its applicability to the area of adopting physical activity(29). While most in society realize the benefits of being active, authorities involved in health promotion are still often faced with how to get people started on an exercise program and keeping them on it. This theory would predict that individuals in action and maintenance would favor the positive features (PROs) of exercise, while people in precontemplation and contemplation would see reasons not to change or engage (CONs) as more salient. An example of a PRO item from this study was - "Regular exercise would help me relieve tension." A CON item was - "Regular exercise would take too much of my time." Subjects were asked to indicate (on five-point scales) how important each statement was with respect to their decision to exercise or not to exercise. As predicted, on moving across stages, the benefits of physical activity steadily grew in importance for respondents while negative aspects waned.

Another important factor in determining readiness for behavior change is self-efficacy. In daily life, people continuously make decisions about what courses of action to pursue and/or how long to continue those already undertaken. Knowledge and the requisite skills for an activity will be important determinants of successful outcomes. However, they do not guarantee success(30). A mediating determinant of how people behave is an individual's perception of his or her own specific performance capabilities for a particular type of task. This is referred to as self-efficacy. As such, efficacy beliefs help determine actual behavioral choices made, how much effort people will expend on an activity, how long they will persevere when confronted by obstacles, and how resilient they may prove to be in the face of adverse situations. When considering whether or not to engage in an activity, for example, people tend to avoid those they believe exceed their coping capabilities, while they are more apt to engage in those they feel capable of managing.

Efficacy beliefs, whether accurate or not, also play a role in individual thought patterns and emotional reactions. Those who judge themselves unable to cope under certain demands tend to dwell on their personal deficiencies and often imagine potential difficulties as more formidable than they really are. In contrast, persons who have a strong sense of their capabilities respond to the demands of the situation and are spurred on to greater effort(30). This is obviously important in educational circles and Dembo has addressed the impact of self-efficacy in

his reference on educational psychology(31). He reported on data that found students with high efficacy solved more math problems, and were willing to re-do problems when incorrect, than were students low in self-efficacy. In fact, self-efficacy was more predictive of achievement than was a student's actual ability level. Students with a high sense of efficacy are more likely to choose difficult tasks, expend greater effort, and persist longer on any given task.

Efficacy beliefs are situation specific. A person may possess strong expectations of success during athletic endeavors but have difficulties coping with the stress of public speaking, for example. In addition, the greater the skill required for a behavior, the more important will be perceptions of self-efficacy in determining the outcome(32). Researchers assess self-efficacy beliefs by asking individuals to report the level, generality, and strength of their confidence to accomplish a task or succeed in a certain situation(33). Measurement of self-efficacy within the context of the TMC has taken the form of a confidence scale. Subject confidence ratings (Likert scales) for various tasks are summed to yield a single score reflecting a global sense of efficacy concerning their abilities(34,35).

Determinants of OTC Counseling

In 1979, Knapp described the barriers to improving pharmacy practice as either cognitive, situational, legal, or attitudinal in nature(36). Since then, factors relevant to determining the extent that patients receive advice on prescription drugs have received considerable attention in the literature. Researchers have studied the effects of pharmacist gender(37), workload(38), pharmacy environment(39), pharmacist attitudes toward counseling(40), perceptions of consumer demand(41), willingness to counsel(42), and a host of other factors.

Although far less than for prescription entities, attention has also been paid to the determinants of OTC counseling. For example, 1200 questionnaires were sent to independent and chain pharmacists nationwide in one American study(43). Pharmacists were provided a checklist and asked to indicate which factors would encourage them to do more OTC counseling. A total of 327 usable documents were returned. Results were as follows (values in parentheses represent the percentage each factor was selected by respondents): more time to counsel (71 percent); reimbursement for counseling (52 percent); more information/education on the products (26 percent); availability of a specific counseling area (19 percent); and more encouragement from management (seven percent).

Other issues have been raised in studies from various countries, including the importance that pharmacists attribute to the task of OTC counseling(44-47). In Finland, Lilja and Larsson examined how pharmacists perceive consumers requesting OTC products(48). These researchers believed that pharmacists will "analyze" a person before communicating with him/her, leading to assumptions about that person's beliefs, attitudes, and expectations. In England, preliminary results suggest that certain pharmacists may lack the confidence to recommend certain OTC products(49).

In Canada, 3000 pharmacists (nation-wide) were sent questionnaires for an OTC counseling survey; 384 completed and returned the document(50). When asked which factors would encourage them to do more OTC counseling, 94.3 percent indicated that additional resources (in the form of time and staff) would lead to more involvement. Other reasons included being reimbursed (76 percent), the need for more pharmacist education (64 percent), and more information from patients (49 percent). Another Canadian survey chose a different perspective, asking respondents to indicate the reasons why they do not counsel certain patients on OTCs(51). The reasons included: (*i*) patients not asking for help or providing no opportunity for counseling (84.2 percent of respondents); (*ii*) a belief that counseling was not required (60.2 percent); and (*iii*) patients refusing to be counseled (53.4 percent).

Very little research has specifically focused on nonprescription drugs kept behind the counter (the focus of this study). Researchers in Florida did examine community pharmacist attitudes toward the Self-Care Consultant Law, a situation offering similarities to pharmacist-only medicines. Interviews with pharmacists who had "prescribed" the applicable medications were carried out after enactment of the law(52). Factors (at the one year point) that impacted negatively on pharmacist involvement included a lack of time to engage in this activity and concerns over greater exposure to liability.

METHODS

The methodology has previously been described(53). To summarize, questionnaires were mailed to a sample of 500 community pharmacists, with names randomly selected from the pharmacy registry of one Canadian province. A pharmacist-only category has existed for many years in this province. A wide array of information was collected during this survey. The questionnaire had a total of six sections: (*i*) determination of stages of readiness for change; (*ii*) a decisional balance measure; (*iii*) agreement on NPA product status; (*iv*) demographic characteristics; (*v*) assessment of pharmacist self-efficacy; and *(vi)* assessment of social desirability. Data regarding the first four sections have already been reported(53). Methodology reported here will focus on what was required to gather data on self-efficacy and social desirability.

Immediately upon beginning the questionnaire, respondents were provided a description of what was expected of pharmacists (criterion behavior) when dealing with NPA OTC product requests:

> When purchasing a No Public Access OTC product in pharmacies, people often ask for the product specifically by name. During such requests, pharmacists must assess the appropriateness (right drug, correct use, etc) of these selections. The assessment process could involve a pharmacist asking questions to determine the symptoms being experienced, previous use of the product and whether benefits were obtained, current use of other medications (Rx and OTC), history of other illnesses and relevant patient characteristics (age, pregnancy status, etc). The purpose of this assessment is to determine if the product is suitable for the patient and/or whether the patient may be at risk for any potential drug-related problems.

Respondents were asked to read this statement and answer subsequent questions accordingly. Further details stipulated that this level of intervention was to occur during every instance a product was requested by name. This phrasing ("by name") was used because most requests for an NPA OTC product at prescription counters occur in this manner. There are also indications that this type of request is rather problematic for pharmacists(49,54-56), further justifying that specific attention be given.

Table 1. Pharmacist self-efficacy of OTC product assessment skills

Scale item	n	Mean (SD)
The ability to monitor and assist the long-term product user.	341	6.0 (1.8)
The ability to assist consumers who seem in a hurry.	343	6.1 (1.7)
The most appropriate way to initiate the assessment process.	343	6.4 (1.7)
Knowing how much information to provide.	343	6.4 (1.7)
The most appropriate questions to ask during assessment.	342	6.5 (1.6)
Creating consumer awareness of why pharmacists should ask questions.	343	6.5 (1.7)
A clear understanding of what is expected of me when products are requested by name.	341	6.5 (1.8)
An understanding of the conditions that are amenable to these agents.	342	6.7 (1.5)
Knowing how to utilize information on patient profiles during requests.	343	6.9 (1.6)
Therapeutic knowledge of No Public Access OTC agents.	342	7.0 (1.6)
The communication skills required to discuss these matters.	342	7.2 (1.6)
When referral to medical attention is required.	343	7.2 (1.4)

A measure of pharmacist self-efficacy in performing the criterion behavior was developed(34,35). The originators of the model based their work on Bandura. He posited that a person's perceived ability (efficacy expectations) on a given task will mediate future attempts to perform that task. Significant and lasting behavior changes would therefore be preceded by changes in levels of capability. In accord with the TMC, confidence across a variety of tasks was measured in order to obtain a global assessment of self-efficacy. Items for this item pool were initially drawn from the patient assessment chapters of textbooks focusing on nonprescription drug therapy(57,58). Subsequent items were added as a result of interviews with pharmacists. Included in the mix were items with a focus on the counseling "process" as well as those more specific to therapeutic content. Fourteen items were presented to an expert panel for assessment; twelve were eventually selected for inclusion in the document. Higher respondent scores across all 12 items should indicate greater confidence in assessing OTC product selections. The number of items used by DiClemente and others to assess perceived self-efficacy has been 12(59), 31(35), 28(34), 20(60), and eight(61). While five-point scales for item assessment have been used in the past(34,35,61), a 10-point scale was used for the current study. The reason for the change was because this scale length had been used in a TMC-based study that approximated the general nature of the current study (behavior of health care professionals), thereby providing a degree of precedence.[2] Obtaining items through discussions with practitioners and experts has implications for the content validity of the scale. Items were added to the final document in a random order.

As the data for this study were obtained by self-report, there was a need to assess the impact of social desirability on the responses. Such a measure should estimate the tendency for respondents to select culturally sanctioned behaviors in order to project themselves in the most favorable light. The Marlowe-Crowne Social Desirability Scale is a measurement tool for such purposes and has seen application in research for over 20 years(62). It was developed by Marlowe and Crowne and consists of 33 true-false items. Respondents are asked to indicate their general agreement (or disagreement) with various statements, such as - "There have been times when I was quite jealous of the good fortune of others." Rather than a clear indication of actual behavior (or deliberate deceit), however, the developers state that individuals who depict themselves in very favorable terms on the scale simply can be described as "displaying a social-desirability response set." While the original scale contained 33 items, Reynolds found a 13-item version to be psychometrically sound and a viable substitute(62).

It therefore offered a shorter, easier alternative for the current study. The internal consistency (reliability) estimate of this scale was 0.76 as calculated by the Kuder-Richardson 20 formula. The correlation of this scale to the original Marlowe-Crowne was reported to be 0.93(62).

The questionnaire was mailed to 20 (randomly selected) pharmacists during pilot testing. The procedure for questionnaire recovery was guided by the method of Salant and Dillman(63).

RESULTS

Data collection was carried out over a two-month period during the summer of 1997. Of the 500 questionnaires originally sent, some went undelivered or were removed from study (n = 14). Three hundred forty-three were considered usable for analysis. Of these, 54.5 percent (n = 187) were returned by male pharmacists and 45.5 percent (n = 156) by female pharmacists.[3] Women in the sample were younger than men (35.4 years vs 44.4 years) and this difference was significant (t = 7.23; 339; $P < 0.05$). The majority of respondents (41.8 percent) considered themselves to be staff pharmacists (full- or part-time status at one location). The next most common group were owners (30.3 percent), followed by dispensary managers (18.2 percent), and relief pharmacists (full- or part-time status at two or more outlets) who accounted for 9.4 percent. These pharmacists worked an average of 30.5 hours (SD = 11.6) in a dispensary per week (over a previous one-month period).

Respondents were asked to indicate the type of pharmacy they considered to be their primary place of employment. Most (40.6 percent) stated this to be an independent operation (defined as one outlet).[3] Pharmacies associated with grocery or department stores accounted for 18.7 percent of the sample. The remaining pharmacies were described as chains (two or more outlets) at 16.7 percent, franchises with square footage greater than 1200 square feet (14.0 percent), medical building pharmacies (7.6 percent), and 2.3 percent by franchises ≤ 1200 square feet. Being a rather rural province, a significant number (37.8 percent) were located in towns of under 6,000 people. The prescription volume for all operations was 113.2 (SD = 74.5) on average per day. Daily hours of operation averaged 11.2 hours (SD = 3.2).

In accord with the criterion behavior developed for this study (assessing appropriateness for every request involving a pharmacist-only OTC product), respondents were categorized

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[2]DePeu, J. (personal communication). Physician Counseling Smokers Study. Miriam Hospital, Rhode Island: February 25, 1997.

[3]As reported in Taylor *et al* (53).

into the following stages of readiness: 57.6 percent were in the precontemplation stage; 4.3 percent were in contemplation; 24.4 percent were categorized to the preparation stage; 1.2 percent to action; and 12.5 percent were considered to be in the maintenance stage.[3] By definition, then, the majority of respondents had no intentions of intervening in all NPA product requests (by name) in the next six months.

For the main part of the questionnaire, respondents were asked to indicate how confident they are (or would be) with 12 skills applicable to the process of assessing product appropriateness. This was captured on a 10-point scale [definitely not confident (0) to definitely confident (9)] for each item. The items appear in Table I and are in order of reported pharmacist confidence. Monitoring and assisting patients who use products chronically garnered the lowest confidence rating. Yet, this item still received an overall rating of 6.0 on a scale of 0 to 9. Furthermore, a difference of only 1.2 separated this item from the highest ranked item. Cronbach's alpha was 0.937 for the 12-item scale.

For this battery of items, a maximum self-efficacy score of 108 (12 items x 9) was possible, as was a minimum score of 0 (12 items x 0). Given this calculation, the overall self-efficacy values for each stage of change were as follows: precontemplation = 76.6; contemplation = 79.7; preparation = 81.9; and action/maintenance[4] = 88.4. As one would expect, greater pharmacist self-efficacy was evident in moving from precontemplation across to maintenance. To determine if these differences were significant, ANOVA was performed. For this, the alpha level was made more stringent (0.01) due to a potential violation of the normality assumption of this test(64). The ANOVA result was significant at this level, indicating that a difference existed between mean self-efficacy values across the four stages of change [$F = 9.03; 3,324; P < 0.01$]. Post hoc analysis (Scheffé test) revealed that the difference between the precontemplation group and the action/maintenance groups (11.8) was significant. All other differences, however, were not significant.

Differences were seen in self-efficacy and pharmacist gender. Male pharmacists generally expressed more self-efficacy (81.6) than their female counterparts (76.7), a difference that was significant ($t = 3.09; 341; P < 0.05$). This was not the case for comparisons involving pharmacists practicing in small towns versus cities, nor were there significant differences in relation to years since graduation.

The data were examined to determine the effect of social desirability on responding. A total score of 13 was possible on this scale; such an outcome would indicate a strong possibility of social desirability. This score, in fact, would mean that a respondent answered every scenario in a way that positioned him or her in the best possible light. The mean of all pharmacists of this study was 8.6 (SD = 2.6). Male respondents exhibited a slightly greater tendency for socially-desirable responding, although the difference was not significant ($t = 0.92; 334; P > 0.05$). Age of respondents also did not correlate to social desirability ($r = 0.06; P > 0.05$).

Respondents scoring high on social desirability may also place high importance on the benefits of engaging in the criterion behavior, given its nature as a desirable professional characteristic. For this reason, the potential for a relationship between the PRO factor (three items obtained via earlier work3) and social desirability was examined through Pearson r. The results indicate no significant correlation between these

two variables ($r = -0.05; P > 0.05$). Thus, those who claimed to engage in many socially desirable behaviors did not necessarily claim to do the same regarding professional behavior involving NPA OTC products. Finally, ANOVA was used to determine whether mean social desirability scores for respondents differed across stages of change. While pharmacists of the action/maintenance stage scored higher on social desirability (9.4) than the other three stages (precontemplators = 8.5, contemplation = 8.1, preparation = 8.4), the differences were not significant ($F = 1.81; 3, 317; P > 0.05$). The above analysis suggests that the data were minimally influenced by the effects of social desirability.

During the study, procedures were implemented to increase the response rate. As a result, concern over nonresponse bias may potentially be lessened due to the relatively high number of completed surveys obtained. In addition, pharmacists who did return questionnaires submitted documents that could be considered very complete. Still, pharmacists who had not returned a questionnaire by the designated date were sent nonresponse cards. Over the post-data collection period, 49 cards were returned. In summary, nonresponding pharmacists tended to be male, several years older, working in the larger centers of the province, and were filling slightly more prescriptions per day.

DISCUSSION

While almost every Western nation currently has a pharmacist-only category in place, the continuation of such cannot be taken for granted by the profession. A trend toward general global harmonization may force countries around the world to look to markets that have the least restrictive policies in place. If patient safety is secure within those environments, the arguments that can be made elsewhere for the category may be limited. The United States currently has the least restrictive market and, although a lobby continues for a third category, a recent report from the General Accounting Office rejected any plan to implement measures (a pharmacist-only category) that would lead to more pharmacist control during product selection(65).

Pharmacists must set high standards of practice in order to justify limiting public access to select OTC products. Furthermore, this policy must lead to positive outcomes for the users of such medicines. The duties necessary to obtaining these outcomes are currently outlined by provincial standards of pharmacy practice. The Saskatchewan Pharmaceutical Association, for example, states that the pharmacist's responsibility concerning OTCs is to advise the patient on how, when and whether to take nonprescription medication, and when appropriate, advise the patient to consult a physician or other health care professional. The literature has also described the aspects that should be discussed(3,57,58,66,67).

Newer standards in Canada are being ushered in to raise the level of care for NPA OTC users. They state that once an encounter occurs, the responsibilities of the pharmacist will be to interview the patient (or agent) to determine and assess the condition to be treated, the history of disease states, and any known risk factors such as adverse reactions, interactions, or side effects(22). In so doing, a determination will be made for appropriate drug therapy, nondrug therapy, or referral to medical attention. When a product is recommended, pharmacists will be required to advise the patient (verbally and/or with written material) on the common adverse effects, precautions, directions for proper use, correct storage of the drug, and

length of therapy. Referral to a patient medication profile is recommended (if available), as is documentation of any intervention provided.

Barriers to achieving a higher level of care have been identified in various reports and typically include a lack of pharmacist time and not being paid for such activity. Another potential barrier is whether pharmacists feel adequately trained to undertake the duties involved with a higher standard of care. Those less confident in dealing with consumers requesting NPA OTC products may be reluctant to engage in this professional activity. The literature has ascertained that a concern exists in this area, although pharmacist ability and/or confidence have never been identified as the main barrier in any study. Pharmacists in Saskatchewan identified a lack of communication skills, lack of knowledge, and lack of confidence (among others) as potential barriers to OTC counseling in their practices(68). Nationally, the need for more education placed third on one list of factors(50). It should be noted that the University of Saskatchewan has had a mandatory course in over-the-counter therapeutics for approximately 20 years.

For the current study, respondents reported how confident they were with 12 skills applicable to the assessment process. The items were generated primarily from reference texts on OTC counseling. Overall, pharmacists of the sample appeared to be reasonably confident in their abilities to perform or utilize the skills listed. This should translate into minimal hesitation when considering whether to engage in product assessment, if and when deemed appropriate by the pharmacist. However, since the majority of pharmacists were classified as precontemplators, other factors must be in play to explain the limited level of readiness for increased consumer-pharmacist interaction. It should also be noted that self-reported efficacy may not parallel actual abilities in any area.

The self-efficacy data obtained in this study support the theory of the TMC, which postulates that perceived ability will vary across stage of readiness. In this case, pharmacist self-efficacy was lowest (as would be predicted) for those categorized as precontemplators (76.6), higher in contemplators (79.7) and preparation (81.9), and highest for those in action/maintenance (88.4). These data have implications for continuing pharmacy education. They suggest that while education and skill development may not be perceived as major concerns for pharmacists at this juncture, precontemplators still may have a degree of need. Unfortunately, while their overall scores were lower, the data do not allow one to conclude that self-efficacy was actually problematic for them. A limitation of the methodological design was failing to include a reference point by which to judge the scores. Specifically, it would be difficult to determine at what point (on the 10-point scale) individual pharmacists might have felt incapable of performing a specific skill or conversely, the point at which fine-tuning might simply be needed. Anchoring the scale with applicable descriptors should have been considered. Nonetheless, precontemplators do appear to be less confident in many of the aspects associated with the product assessment process. As somewhat of a surprise, the year of graduation had no effect on pharmacist self-efficacy; older pharmacists appeared to be as confident as those new to the system.

Regarding specific items on the self-efficacy measure, a difference of only 1.2 separated the lowest item from the highest ranked item. It may therefore be concluded that no one specific task within the product assessment process stood out as an area of concern. Monitoring and assisting patients who use products long-term did garner the lowest rating for confidence, yet still received an overall rating of 6.0. Chronic users would be those consumers who frequently visit pharmacies to purchase products. Some of these would undoubtedly ask for their product by name.

If any area within the product assessment process was of concern, it may involve non-therapeutic issues. Of the three items that amassed the least amount of confidence amongst pharmacists, two involved the process of engaging in an encounter rather than actual content. In other words, how to proceed with a counseling episode was the issue, not what information might be provided once engaged. Specifically, the most appropriate way to initiate the assessment process was ranked tenth overall at 6.4, while the ability to assist consumers who seemed in a hurry placed eleventh (6.1) out of 12 items. For some pharmacists, getting the interaction started (especially in less than ideal situations) was somewhat problematic. Much debate is also taking place in England over the number and type of questions to ask consumers during counseling sessions. This is being spurred on by the OTC counseling protocol initiative of that country. A wide range of approaches have been discussed, from ones exhibiting considerable flexibility to those where the exact questions to ask consumers have been identified. Pharmacists in the current study were asked to respond to this issue. The item - most appropriate questions to ask during assessment - ranked eighth (6.5) overall, thus finishing near the lower end of the self-efficacy measure. Pharmacy educators may therefore want to focus attention on the dynamics of consumer-pharmacist encounters in order to overcome these difficulties. Educators should consider adopting interactive classroom exercises that model what can transpire during encounters. Knowing what is likely to happen under given circumstances can reduce the stress of uncertainty and provide the basis for developing ways of managing these situations(69). Mnemonics have also been proposed to assist practitioners in responding to symptom presentation by patients(70).

Another matter relevant to the consultation process is the issue of how product requests are presented by the public. When a patient describes symptoms of a minor illness to a pharmacist, the course of action to be taken is relatively clear - the patient and his/her symptoms will be assessed and a recommendation made. Most requests for an NPA OTC product at the counter, however, occur as a result of a product request directly by name, as in "Can I please have a bottle of Polysporin® Eye Drops?" Because such requests can sound rather authoritative, the pharmacist will have a decision to make - should he or she intervene during the purchase? While the person might not appear to *want* advice (because s/he did not ask for it), does that person still *need* advice on the product?

There exists considerable controversy regarding the extent to which pharmacists should intervene under these circumstances(49,54-56). The difficulties in this area have been aptly described in a study from the University of Manchester in England(71). In 10 pharmacies, observers recorded 2379 interactive episodes involving prescription and nonprescription products. Of these, 60 percent dealt with prescription medicines, while 29 percent of the recorded events involved OTC products specifically requested by name (or by type). Five percent of transactions resulted in consumers presenting symptoms to pharmacy staff. It was determined that consumers visiting pharmacies for OTC products fell into one of two main

categories: the "determined purchaser" and the "worried-well patient." The former group tended to demand a specific product by name ("I would like Benylin®") or by type ("I would like a cough syrup") and it was this group that pharmacy staff had the most difficulty advising. At times, for example, questions posed by pharmacy staff to assess product appropriateness were received with confusion, hostility, or belligerence. Conversely, the worried-well patient tended to make it easier to ask questions and give advice, apparently as most were looking to the pharmacy staff to make an actual recommendation. Pharmacy educators will need to prepare students for the realization that people may sound like they know what they need, but that this may not be the case. Questions must be asked to ensure that the requested product is appropriate this time, even if it was appropriate in the past. Some patients might object, but their safety must come first. The apparent confidence in a person's voice may be a factor in reducing pharmacist involvement, leading to a notion that intervention is not needed. If indeed the case, this would contradict the many reports and commentaries that indicate pharmacists have questioned the ability of consumers to select products without professional involvement(16,72-74). Seventy-eight percent in one survey believed that consumers will often buy an inappropriate medication if left to themselves(75).

CONCLUSION

The barriers to attaining a high standard of care with OTC products are well known. Concerns over privacy, a lack of time, and not being paid are issues commonly identified in surveys. Under these less than ideal conditions, pharmacists are being asked to become even more involved in the OTC product selection process. This is especially evident in Canada, where pharmacists may be asked to adopt new standards in order to improve patient care and justify continuation of the pharmacist-only category. A relatively new barrier to obtaining desirable outcomes was considered here. It can be concluded that pharmacists were relatively confident in the skills required for assessment of product appropriateness. Application of the TMC, however, identified that self-efficacy was stage-specific in nature.

Pharmacy educators should consider that how to proceed with NPA OTC consultations may need more attention than the matter currently receives. Imparting an awareness of what to expect when consumers request products may prove useful.

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