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Using the Consumer Experience with Pharmacy Services Survey as a Quality Metric for Ambulatory Care Pharmacies: Older Adults' Perspectives

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4 **Ambulatory Care Pharmacies: Older Adults' Perspectives**
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Abstract

Objectives: To describe older adults' perceptions of evaluating and comparing pharmacies based on the Consumer Experience with Pharmacy Services Survey (CEPSS), describe older adults' perceived importance of the CEPSS, and explore older adults' perceptions of the influence of specific CEPSS domains in choosing/switching pharmacies.

Design: Focus group methodology was combined with the administration of a questionnaire. The focus groups explored participants' perceived importance of the CEPSS and their perception of using the CEPSS to choose and/or switch pharmacies. Then, using the questionnaire, participants rated their perceived importance of each CEPSS domain in evaluating a pharmacy, and the likelihood of using CEPSS to switch pharmacies if their current pharmacy had low ratings. Descriptive and qualitative thematic analysis were done.

Setting: Six semi-structured focus groups were conducted in a private meeting room in a Mid-Western state in the USA.

Participants: Sixty English-speaking adults who were at least 65 years, and had filled a prescription at a retail pharmacy within 90 days.

Results: During the focus groups, the older adults perceived the CEPSS to have certain advantages and disadvantages in evaluating and comparing pharmacies. Older adults' thought the CEPSS was important in choosing the best pharmacies and avoiding the worst pharmacies. The perceived influence of the CEPSS in switching pharmacies varies depending on the older adult's personal experience or trust of other consumers' experience. Questionnaire results showed that participants perceived health/medication-focused communication as very important or extremely important (n=47, 82.5%) in evaluating pharmacies and would be extremely likely (n=21, 36.8%) to switch pharmacies if their pharmacy had low ratings in this domain.

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3 Conclusions: The older adults in this study are interested in using patient experiences as a quality
4 metric for avoiding the worst pharmacies. Pharmacists' communication about health and
5 medicines is perceived important and likely to influence older adults' pharmacy selection.
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For peer review only

Article Summary

Strengths and limitations of this study

- For the first time, research examines perceptions of patient experience with pharmacy measures. This study is important as pharmacy quality organizations aim to include patient experiences as part of a pharmacy's quality metrics.
- This is the only study to examine whether patients perceive patient experience measures (that may be publicized in pharmacy quality reports) as important or useful in their healthcare provider selection.
- This study is significant in improving the quality of care provided by pharmacy providers as the pharmacy profession moves towards the development of quality ratings that can be understood and used by patients to inform their pharmacy selection.
- Small sample size.
- Limited geographical area.
- Convenience sample

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3 **Patient consent:** Obtained.
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6 **Author's contribution:** OOS and DM designed the study. OOS and KC was involved in data
7 collection and data analysis. OOS and KC wrote the manuscript and DM critically revised the
8 content. All authors approved the final version of the manuscript.
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BACKGROUND

Public reporting of quality-of-care information has been suggested as a means for patients to actively choose best performing providers that deliver quality and efficient care.¹ With access to provider performance data, it is assumed that patients are aware of the differences in quality-of-care and can make an informed decision based on this information.² It is expected that when patients become selective of their healthcare providers based on publicly available performance information, providers will be forced to improve quality-of-care so that they can maintain their reputation and stay competitive.³

Although work has been done to encourage patients to utilize provider performance information to choose their healthcare providers, it is disconcerting to know that available public reports are not commonly used by patients, and the public reports do not have a substantial effect on patients' decision making.^{2,4} This is, in part, due to a myriad of factors, including a lack of awareness of available provider performance information and low perceived usefulness of the information.^{3,5-7} In addition, it is reported that patients do not have an interest in using provider performance information because the information presented is irrelevant and contains provider performance measures that are not understandable.^{8,9}

As it relates to pharmacy choice, our previous studies showed that patients do not understand the meaning and interpretation of pharmacy performance measures and few individuals are likely to use them to make an informed pharmacy choice.^{8,10,11} It has been suggested that one way to get patients to use quality information in guiding their provider choice is to consider the features of quality that patients care about and that patients believe are relevant to their choice.^{12,13}

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Patient care experience measures are increasingly used in public reporting to highlight the patient's perspective of their care.¹⁴ Standardized patient surveys such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey is a mechanism through which the information and experiences that patients gain while utilizing health services can be captured and summarized.¹⁵ Although data describing patients' health care experiences might be used by consumers to choose better performing providers (e.g., hospitals) as well as hold them accountable¹⁶, no one facilitated the development of patient care experience surveys for the care provided in ambulatory (outpatient) pharmacies until recently. A standardized survey, the Consumer Experience with Pharmacy Services Survey (CEPSS), has been developed for patients' evaluation of pharmacy services received in an ambulatory care setting.^{15,17}

The CEPSS was developed as a mechanism for benchmarking the quality of pharmacy services provided by pharmacists nationwide. Most patients utilize a pharmacy for ambulatory care services such as filling a prescription medication, obtaining medication information about an over-counter drug, or getting advice about disease self-management.¹⁵ With the CEPSS, the information relevant to pharmacy quality based on patients' interactions with pharmacists can be captured from survey responses. Based on the CAHPS initiative, the CEPSS is a reliable and valid survey to capture patient perceptions of pharmacy quality. There are four measures of pharmacy quality within the CEPSS: Pharmacy Staff Communication, Health- and Medication-Focused Communication, Pharmacy Care, and Clarity of Written Information about Medicines (Table 1). Similar to the CAHPS survey, the rationale for the CEPSS is that it can be used by healthcare organizations, insurers, and patients as a quality metric in evaluating and comparing a pharmacy's performance and ultimately motivate patients to choose high quality pharmacies.^{15,17}

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Previous studies have reported mixed results related to the usefulness of the CAHPS survey in patients' evaluations of hospitals and health plans^{1,2,18-20 21,22}, and the importance of the CAHPS measures in patient decision making.^{1,23,24} Since the development of the CEPSS, no research has examined whether patient experience information might be useful to patients' evaluations of pharmacies and if the CEPSS is important in patients' decision making concerning their pharmacy. Also, we do not know if patients' perceptions of the usefulness of the CEPSS are similar to reported usefulness of the CAHPS survey. In our previous study, patients with chronic illnesses who discussed the usefulness of clinical pharmacy quality measures also wanted to see consumer experience quality metrics.¹¹ It is assumed that the CEPSS will be important to pharmacy consumers for several reasons. For example, a pharmacist may ensure the accuracy of a prescription medication, check the appropriate labeling of a prescription medication, and ensure the safe administration of the medicine by checking for drug interaction. Based on clinical quality metrics, this pharmacy may be ranked as "high technical quality." However, the pharmacist may not give the patient the amount of time and attention needed, answer their questions appropriately, or offer private counseling spaces during the discussion of sensitive health issues. These aspects of pharmacy quality can only be evaluated based on patient input and experience.¹⁵ Hence, the CEPSS can be important as a quality metric in facilitating patients' pharmacy choice.

This study focuses on older adults' perceptions of using the CEPSS to evaluate and compare pharmacies, their perceived importance of the survey, and the perceived influence of the survey in their pharmacy selection. The research is significant to older adults because they use a lot of medicines, are more likely to have a chronic condition and are at risk for preventable adverse drug events.²² Because of these reasons, they are more likely to talk to the pharmacist

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3 about their prescription medicines and utilize pharmacies for medication reviews, disease
4 management, and other pharmacy services.²⁵ Exploring older adults' perceptions of the CEPSS
5 will allow this information to be utilized in the development of public reports that will help them
6 identify better performing pharmacies.
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12 According to Hibbard et al. 2002's theoretical consumer choice model²⁴, a psychological
13 process takes place in a patient's mind before they proceed with a behavior (i.e., provider
14 decision making using quality information). Specifically, the model proposes that patients need
15 to be aware of the availability of quality information, trust the information, and perceive the
16 information as useful to them (the psychological processes) before it can be used in their
17 decision making (the behavior).^{2,5,24} This study explores, in part, these psychological processes
18 among older adults who could potentially use pharmacy quality information.
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29 **OBJECTIVES**

30 The objectives of the study are to 1: Describe older adults' perceptions of evaluating and
31 comparing pharmacies based on the CEPSS, 2: Describe older adults' perceived importance of
32 the CEPSS, and 3: Explore older adults' perceptions of the influence of specific CEPSS domains
33 in choosing/switching pharmacies.
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40 **METHODS**

41 **Sample**

42 The convenience sample for this study consisted of English-speaking individuals who had filled
43 a prescription at a retail pharmacy within 90 days of recruitment and who were at least 65 years
44 of age. The authors partnered with staff at senior apartment facilities and community centers to
45 recruit participants by means of email announcements, word of mouth, and flyers. Participants
46 were informed of the study's objectives, eligibility criteria, and participation incentive (\$50
47 cash). Recruiters enlisted the participation of both men and women who had the capacity and
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3 ability to provide consent. The Social and Behavioral Sciences Institutional Review Board of the
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5 University of Wisconsin-Madison approved the recruitment design and the overall study. Based
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8 on the number of participants who responded to the recruitment efforts, a total of 60 people were
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10 recruited to six focus groups. There were no drop-outs or refusals to participate.

11 12 **Study Design and Data Collection**

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14 Using a phenomenology approach, focus groups were chosen as the data collection method
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16 because the ways in which older adults think about and might use pharmacy patient experience
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18 measures are insufficiently understood. Focus groups allowed for gathering and exploring a wide
19
20 range of perspectives on pharmacy quality. A semi-structured questioning route was developed
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22 by the authors and used at all six groups. The participants were informed of the reasons for
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24 conducting the research and the reason for the investigators' interest in the research topic. One of
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26 the authors (KC), a trained male focus group moderator and a PhD-trained cultural
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28 anthropologist, who has 20+ years of experience conducting qualitative research, facilitated the
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30 groups. All groups were attended by the study's principal investigator (OS). Field notes were
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32 taken by OS during the focus groups and discussed with the moderator. Senior apartment
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34 facilities and community centers in Madison, Wisconsin, served as venues for the groups. The
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36 groups took place from May–July 2014 and lasted approximately 90 minutes each. Participants
37
38 were not given any information about CEPSS before completing the focus groups.

39
40 To explore the triangulation of results, a brief 10-minute 12-item questionnaire was self-
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42 administered at the end of the focus groups. The questionnaire asked participants to rate the
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44 importance of each specific CEPSS domain in evaluating pharmacies (on a five point Likert
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46 scale, response options were 'Not at all important' to 'Extremely important'. Also, on a five-
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48 point likert scale, participants indicated their likelihood of changing pharmacies if a pharmacy
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3 rated low in a specific domain (response options were ‘Not at all likely’ to ‘Extremely likely’).
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6 Participants’ demographic information was also collected.
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8 **Analysis**

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10 The analysis in this article focuses on the following questions, which are a subset of questions
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12 administered at the groups:
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- 14 • I will ask you to imagine that you had access to a report that compares pharmacies based
15 on all the aspects of pharmacy quality that we have been talking about (The following
16 measures of pharmacy quality, including their definitions, which had been discussed
17 individually, were displayed on a flipchart to facilitate participant discussion of the
18 present question: Health and medication-related communication, Pharmacy staff
19 communication, Pharmacy care, Clarity of written information provided with
20 medications). (See table 1 for descriptions). Imagine that the report would tell you which
21 pharmacies do better and which do worse on these aspects of pharmacy quality. What
22 would you think about pharmacies being evaluated and compared on these aspects?
23
24 • What would you do if you read such a report and saw low quality ratings for your
25 pharmacy?
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27 • Which aspect of pharmacy quality, if you found it rated low in a report, would prompt
28 you to change your pharmacy? What is important to you about this factor?
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30 • What are your thoughts on how to distribute a report on pharmacy quality to pharmacy
31 customers?
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50 The focus groups were audio recorded, transcribed verbatim by a certified transcriptionist, and
51 independently coded by two of the authors (OS and KC). NVivo® version 10 (QSR
52 International, Burlington, MA) was used to organize the data and to categorize the themes. Data
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3 saturation was discussed by OS and KC. Transcripts were not returned to participants for
4 comments or corrections. The authors used descriptive coding, which is a method of coding
5 qualitative data whereby words or short phrases are assigned to segments of text to capture their
6 essential ideas, and to enable comparison of similar ideas across the entire qualitative data set (in
7 our case, across all transcripts).²⁶ The authors coded all transcripts independently and discussed
8 coding divergences. They reached agreement on the application of all codes. The participants did
9 not provide feedback on the findings.
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20 RESULTS

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22 There were 60 older adults in this study. The composition of each focus group was
23 published previously.¹³ The highest proportion of older adults were female, white, had a
24 graduate degree and self-reported having good health. (Table 2). Based on the study objectives,
25 four major themes emerged from the focus group.
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32 First, older adults' perceived the CEPSS to have certain advantages and disadvantages in
33 evaluating and comparing pharmacies. Second, older adults' thought the CEPSS was important
34 in choosing the best pharmacies and avoiding the worst pharmacies. Third, older adults'
35 perceived the CEPSS would be influential in their decision to choose a pharmacy. Fourth, older
36 adults' perception of the CEPSS influence in switching pharmacies varies depending on the
37 individuals' personal experience or trust of other consumers' experience. Additional themes are
38 also described.
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48 The study's overall findings are grouped based on the objectives of the study.

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50 **Objective 1:** The objective was to describe older adults' perceptions of evaluating and
51 comparing pharmacies based on the CEPSS.
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3 Major theme 1: Older adults' perceived the CEPSS to have certain advantages and
4 disadvantages in evaluating and comparing pharmacies. Some older adults supported the use of
5 CEPSS to evaluate and compare pharmacies because many health services are compared in the
6 market place and the evaluation would have a salutary effect on pharmacies that were initially
7 rated as low quality (Table 3)
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15 *"I think it's very useful. They rate hospitals nationwide. You can go and look up how your*
16 *hospital rates. I think you should be able to do that for your pharmacy."*
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20 *"Everybody would get better or do the job better knowing somebody is watching over them.*
21 *I think they would do a better job if they know somebody out there is watching over them*
22 *and grading them."*
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27 On the other hand, some older adults were not supportive of using the quality domains to
28 evaluate pharmacies because it was not based on quantifiable clinical indicators of quality but
29 based on subjective information.
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34 *"If you're real unhappy cause you have to wait [in line], go to a different pharmacy!, but*
35 *the only important thing to get out of a pharmacy is the proper medication and the cost and*
36 *those are the only two things that are life and death, just as in a hospital. The service you*
37 *get, whether you're going to get an infection, whether you're going to get a pharmacist who*
38 *has a poor record...those are the important things, whether they make errors and whether*
39 *their cost is prohibitive."*
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48 Additional minor themes were identified:

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50 Credibility of the quality information was an important consideration in the use of
51 CEPSS as a quality metric for pharmacies. Older adults stated that their trust (credibility) of the
52 quality information would depend on the information source, timeliness of the information, and
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3 whether the quality information was based on the CEPSS or other objective quantifiable data.
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6 Verbatim statements included:
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8 *Credibility of the information*
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10 *“Who’s doing the judging...? Because you get all kinds of commercial interests involved,*
11 *and public interests involved, and government interests involved.”*
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13 *“If they’re going to be rated, then we have to look at who’s doing the rating. If it’s the*
14 *customer that would be one thing, if it’s some outside source that knows what they’re*
15 *looking for but may not have a direct relationship, that’s another thing.”*
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20 *Timeliness of the information*
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23 *“How are you going to have it be accurate by the time it would get in the hands [of*
24 *patients], because any self-respecting pharmacist is going to try and fix whatever the*
25 *problem is.”*
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30 *CEPSS versus objective data*
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33 *“Subjective information, that’s a problem. However, there are certain factual things [that*
34 *could be included in a quality report]. I had a pediatrician when my children were*
35 *little...He said, “I have called every pharmacy in [town name] with the ten prescriptions I*
36 *most often prescribe. And, they’re cheaper here, they’re more expensive there.”...The idea*
37 *that a doctor actually took the time to find out what his patients were having to pay for the*
38 *same medication from place to place, that was really a fine thing that he did. That’s the kind*
39 *of research that’s factual.”*
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50 Older adults also suggested that a valid and transparent report on pharmacy quality would
51 need to say:
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“Who’s doing the evaluating, what are the actual criteria on which they’re being evaluated...It would help you determine whether this report is valid.”

“What’s the standard [used for evaluating]? What does selection mean or what does attention [to customers by pharmacy staff] mean?”

Other minor themes: Dissemination of a quality report containing CEPSS information was important to older adults in using the survey domains.

Older adults volunteered some thoughts on how often the quality report should be compiled, including how to structure the report, and dissemination locations for wide reach including the internet, pharmacies, doctors’ offices, and American Association of Retired Persons (AARP) magazines. Verbatim statements included:

Compilation of quality report

“You would have to do this [report] fairly often [because lower-ranking pharmacies would improve right away].”

Structure of quality report

“I think there's two different ways it could be done. You can rate the individual stores or you could rate (Chain Pharmacy A) versus (Chain Pharmacy B), like the whole corporation and I think it would have greater value rating the individual stores but that would be harder to do.”

Dissemination location for quality report

“If you can go by the internet and see—at the pharmacy that I go to, for example, I can enter in the webpage and see if they have a good evaluation.”

“I think a report should be included with your prescription. When you go there to pick it up, the pharmacist should say, "Here is a report.”

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“I would love to have my doctors know which pharmacies are really doing well so that when... I'm in the office [and]... they're going to prescribe a new medication, they could say, “We know that the following three pharmacies not only routinely stock this but are charging a reasonable price for it.” Now, that doesn't say that's where you have to go. But, I'm not having to get to my pharmacy, which is a small one, and suddenly find out that we're going to have to wait a few hours for them to get it to me.”

“I think, since everybody here gets AARP, that would be a real good way, because everybody usually goes through the magazine here or the book that you get and knowing that they're behind this 100%, which they should be, since they are doing more representation of the older population.”

“One other way you could get it around is to have in newspapers and on TV that it is available and here is who you contact to get it. If you don't have a computer you can do that by mail and if you do you can request it on the Internet”

Objective 2: The objective was to describe older adults' perceived importance of the CEPSS.

Major theme 2: Older adults' thought the CEPSS was important in choosing the best pharmacies and avoiding the worst pharmacies. (Table 4)

“It rules out the worst case scenarios for you. If you've got eight to pick from, I would go with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that way at least you can narrow the field down.”

While all the CEPSS domains were important, some older adults strongly supported specific domains compared to others – i.e., health and medication-focused communication and

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3 pharmacy staff communication were both perceived as the most important quality domains.
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6 These results are further confirmed in our questionnaire results.
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8 *“I think medication-related communication is the most important and as [participant name]*
9 *says it's the main purpose of the pharmacy... Anything else is extra.”*
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11
12 *“...I don't count on the pharmacist as the expert about my health. And, if I have a*
13 *medication-related communication, I might ask the pharmacist but I'm more likely to look it*
14 *up online or go through My Chart (a secure online service that allows a patient to*
15 *communicate with their healthcare provider) with my general practitioner. But, being*
16 *treated with respect by the pharmacy staff is very important.”*
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25 **Objective 3:** The objective was to explore older adults' perceptions of the influence of
26 specific CEPSS domains in choosing/switching pharmacies.
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29 Major theme 3: Older adults perceived the CEPSS would be influential in their decision
30 to choose a pharmacy. (Table 5)
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34 *“... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of*
35 *convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then*
36 *somebody recommended someplace else but it was inconvenient. But it turned out... it was*
37 *worth the inconvenience, because the staff there was really concerned and I wasn't afraid to*
38 *ask them questions.”*
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46 However, some older adults would rather use price and pharmacy medication safety
47 information to choose pharmacies instead of the CEPSS.
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51 *“As long as they can give me the right medication I don't give a hoot. I go where the price is*
52 *right and I don't care actually if they have the best price if the pharmacist frowns at me*
53 *every time....I don't care if they say hurry up and get out of here. I don't care as long as*
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3 *their price is right... as long as they are competent... no errors. None of these [CEPSS*
4 *domains] are related to the pharmacy giving you the wrong darn pill.”*
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8 Major theme 4: Older adults' perception of the CEPSS influence in switching pharmacies
9
10 varies depending on the individual's personal experience or trust of other consumers'
11
12 experience. (Table 5).
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15 Some older adults would switch pharmacies because CEPSS information is based on
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17 other consumers' experiences. Also, some older adults would rather not switch pharmacies
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19 because of their personal favorable pharmacy experiences.
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22 *“I don't think I would change pharmacies if my own personal experience were good in all*
23 *those areas... and others might've had a bad experience.”*
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27 When the older adults discussed what specific CEPSS domain would cause them to
28
29 switch pharmacies if their pharmacy rated low, health and medication-focused communication
30
31 and pharmacy staff communication were more frequently described as the quality domains that
32
33 would cause them to switch their pharmacies.
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36 *“I take 17 different prescriptions. And, if I couldn't depend on them (the pharmacy) to have*
37 *accurate... information or the actual medication part of it, if I couldn't trust that, then, I*
38 *guess, I would have to consider changing.”*
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43 *“...you can ask about anything you want to if you have a good communication with staff. If*
44 *you don't have a good communication with the staff, I feel like you're lost, absolutely lost.*
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48 *So... If I was missing that, I'd go someplace else.”*
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51 **Questionnaire results-Importance of the specific CEPSS domains and its use in**
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53 **choosing/switching pharmacies**
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Fifty-seven questionnaires were usable. Three participants had missing data. Patients reported that all the CEPSS domains were extremely important in evaluating and comparing pharmacies. However, the largest percentage of older adults thought pharmacy staff communication (n=27, 47.4%) and health/medication focused communication (n=27, 47.4%) were extremely important in evaluating and comparing pharmacies. (Figure 1).

Overall, low ratings in all the CEPSS domains were likely to lead to a change in pharmacy. Twenty-one participants (36.8%) reported being extremely likely to change their pharmacy if it had low ratings in health/medication focused communication. The lowest percentage of older adults (n= 12, 21.1%) would be extremely likely to change their pharmacy if their pharmacy reported low ratings in pharmacy staff communication (Figure 2).

DISCUSSION

This study showed that older adults' perceive the CEPSS as important in evaluating and comparing pharmacies. Pharmacy quality information based on the CEPSS is likely to influence older adults' pharmacy selection in varied circumstances. The pharmacist's communication about medicines and health is perceived as the most important domain within the CEPSS. Low ratings in this domain are also likely to influence older adults' pharmacy choice and to lead to a possible switch in pharmacy.

Older adults thought that the use of the CEPSS to evaluate and compare pharmacies had certain advantages and disadvantages. This result is consistent with research showing how patients use data from the CAHPS survey in evaluating health plans and hospitals.^{23,24} In the current study, some older adults supported the CEPSS because many health services were already compared in the market place and they perceived that an evaluation would have a beneficial effect on initially low-rated pharmacies. Hibbard et al., 2003 showed that publicizing

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3 hospital performance information led to higher quality among hospitals whose performance were
4 initially low.²⁷ Currently, there is no conclusive evidence of the effect of quality reports on
5
6 improved quality of healthcare services. Schauflier and Mordavsky, 2001 reported that the public
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8 reporting of provider performance information did not affect patients' decision making, or lead
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10 to provider competition and improved quality care.²⁸ This result might vary by the type of
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12 healthcare service being received. For example, in a systematic review, it was concluded that
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14 public reporting stimulates quality improvements in hospitals.¹⁸ However, in the same review, it
15
16 was reported that its effect in stimulating quality among health plans is mixed.¹⁸ Future research
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18 needs to examine whether publicly available pharmacy quality information stimulates quality
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20 improvement in ambulatory care pharmacies.
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27 Some older adults were not supportive of using the CEPSS to evaluate pharmacies
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29 because the CEPSS is not based on quantifiable objective indicators of quality but rather on
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31 subjective information compiled from patients. This result was surprising for two reasons. First,
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33 patients have been reported neither to understand²⁹ nor to use objective quality metrics, in their
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35 healthcare decision making.^{9,30} Second, no comparative pharmacy information based on
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37 objective quality metrics are presently being publicly reported to patients. Objective quality
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39 metrics like the 'High Risk Medication in the Elderly' can be used by older adults to differentiate
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41 high quality pharmacies from low quality pharmacies. Efforts to disseminate this information to
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43 older adults as a mechanism for them to choose quality providers when they are seeking care is
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45 needed urgently.
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51 Older adults will use the CEPSS to avoid the worst pharmacies. In a previous study,
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53 patients stated that they were likely to use quality information to avoid poor quality providers,
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55 rather than to seek out the best quality provider.^{11,31} This result has implications for older adults.
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3 Older adults use a lot of medicines and possibly need pharmacists help with medication
4 management. It is important to educate older adults that they need to actively seek quality care.
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6 Quality information should not only be used when they are disappointed with their current
7
8 provider. The public reporting of pharmacies' CEPSS information will enhance older adults'
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10 active process of seeking high quality pharmacies. With access to quality information, patients
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12 will be aware of the variation in the quality of pharmacies, they will increasingly become
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14 selective of the pharmacy they visit to fill their prescriptions and get their care, and pharmacies
15
16 will make performance improvements to stay competitive.³
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22 In the selection of a pharmacy, older adults would likely use the CEPSS to finalize their
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24 decision making when choosing between several pharmacies. This is somewhat promising.
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26 Previous research shows that the reputation of a healthcare provider,⁴ price,³² and family/friends
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28 referrals^{9,33} are factors patients use in choosing a healthcare provider. Also, location and
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30 convenience have historically been important and used by patients in the initial selection of a
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32 pharmacy.^{34,35} However, this current study showed that when the choice of pharmacies has been
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34 narrowed down, quality information might be used in making the final decision.
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39 Though older adults think the CEPSS is important, some participants would still rely on
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41 their personal experience rather than the survey. Specifically, some older adults preferred to use
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43 their own experience in judging quality, rather than the experience of others. This was surprising
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45 since the CEPSS is based on other patients' personal experience and one would expect older
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47 adults to actively use this information to choose their pharmacies. On the other hand, it was
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49 encouraging to know that some older adults would rely on the evaluations of their peers in
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51 changing pharmacies. Past research shows that patients value other consumers' evaluation of
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53 their healthcare experience.³⁶ Patients like to use satisfaction measures in decision-making,
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3 especially if the responses are from people like themselves who are making similar choices.³⁷

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5 This finding further shows the potential value of publicly reporting pharmacy quality information
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8 based on the CEPSS. Future research should consider the appropriate format and/or content of
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10 comparative pharmacy quality information.
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13 Older adults perceive that they would need to have a personal negative experience before
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15 they would switch their pharmacy based on the CEPSS. Patients who viewed physician
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17 performance information reported the likelihood of changing physicians if he/she performed
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19 badly in a quality report.³⁸ Previous studies have showed that when patients are satisfied with
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21 the care they receive from their healthcare provider, they become loyal and less likely to switch.
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^{39,40} Usually, it takes having a number of bad experiences before consumers would feel
dissatisfied and possibly switch their pharmacy.³⁹ If older adults wait to have a negative
experience in their pharmacy before a decision to seek a higher quality pharmacy is made, a
preventable negative medication adverse effect might occur and lead to serious consequences.
Due to the multiple chronic conditions and high number of medicines used by older adults, they
are more likely to need additional care from their pharmacist. Older adults are more prone to
preventable adverse events and should therefore seek quality providers in their care.

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The focus groups and questionnaire results from this study showed that all domains
within the CEPSS were considered important. However, there was variability in patient
perceptions of the importance of each specific CEPSS domain. The questionnaire results
confirmed that health/medication focused communication and pharmacy staff communication
were the most important specific CEPSS domain. These results are not surprising. Hassel et al.,
showed that patients use community (retail) pharmacies because they perceive the pharmacy
staff to be experts on medicines, have time to talk compared to their doctors and generally are

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3 more approachable than their doctors.²⁵ In a previous study of lay consumers' perception of
4 clinical quality measures, the relationship with the pharmacist was an important factor favored
5 over the use of clinical quality measures in choosing a pharmacy.⁸ Francic et al., also showed
6 that service-related features determined the pharmacy that patients chose to fill their
7 prescriptions. Their study results highlighted the value of the pharmacy staff and pharmacists in
8 patients' pharmacy decision-making process.⁴¹ Using the CEPSS, pharmacies can highlight their
9 communication skills in providing medication information, including their friendliness and
10 caring attitudes.

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13 Based on the questionnaire results, a pharmacy's low rating in health/medication focused
14 communication was extremely likely to cause a switch in pharmacy. Whitehead and colleagues
15 observed that patients who utilized pharmacies with insufficient provision of medication
16 information wanted a pharmacy with better information about medicines. These individuals were
17 also likely to use this factor to choose their pharmacies.⁴⁰ If the amount of medication
18 information that is provided to patients is likely to influence their pharmacy choice, then it is
19 important for pharmacies to publicize their CEPSS results as a way of increasing their patronage
20 by other patients.

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23 Older adults reported that the credibility of the quality information was an important
24 consideration in the use of CEPSS as a quality metric for pharmacies. These results are similar to
25 a previous study of clinical pharmacy quality measures among patients with chronic illnesses.¹¹
26 In addition, Hibbard's proposed consumer choice model has reported a lack of trust in quality
27 information as a barrier to the use of such information in patients' decision making.^{2,24} To
28 enhance the use of CEPSS in patients' pharmacy choice, a credible source needs to be used in the
29 communication of this quality information.

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3 The older adults in this study thought that the internet, the doctor's office, AARP
4 magazines, and mass media communications were portals that could be used in disseminating
5 pharmacy quality information. According to the consumer choice model, patients need to be
6 aware of the availability of quality information before it can be used in their decision making.²⁴
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8 Hence, the information on these possible dissemination avenues are vital to the publicizing of
9 pharmacy quality information and the use of CEPSS by older adults.
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13 This study had some limitations. A convenience sampling approach was used in the
14 recruitment of older adults. Our sample was predominantly female and well-educated. Inter-rater
15 reliability between the two authors who coded the data was determined by consensus and not by
16 statistical analysis. The discussion of the CEPSS domains during the focus group might have
17 impacted the questionnaire results. The CEPSS was developed and validated in 2007. Hence, the
18 pharmacy services represented in the survey may not adequately represent changes in types of
19 services increasingly offered in ambulatory pharmacy including preventative health screening,
20 immunization, and medication therapy management services etc. Also, we did not explore the
21 question of how CEPSS data might be collected and who would pay for it.
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38 CONCLUSION

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40 The Consumer Experience with Pharmacy Services Survey (CEPSS) may be important
41 and influential as a quality metric in older adults' pharmacy choice. The older adults in this study
42 would utilize information related to the pharmacist's communication about health and medicines
43 in their decision to switch pharmacies. Pharmacies should consider using and publicly reporting
44 CEPSS information as a means of publicizing the quality of care provided to consumers.
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Table 1: The Consumer Experience with Pharmacy Services Survey (CEPSS) ^a Quality Domains

Quality Domain	Definition ^b
Pharmacy Staff Communication	Pharmacy staff listens carefully, treats you with respect and courtesy, spends time talking to you, shows concern for you, explains things in a way that is easy to understand, talks to you about your health.
Pharmacy Care	Pharmacist talks to you about how your medicine is supposed to help you, advises you on how to treat a new health problem, talks to you about whether it is safe to take a new prescription medicine along with your regular prescription medicine.
Health and Medication-focused Communication	Pharmacy staff asks if you have problems with your medicine; You can talk to staff about your medicine as often and as soon as you want; When you have a new prescription filled, the staff tells you how often and when to take your medicine, what to avoid when taking your medicine, and what to do when you have bad reactions.
Clarity of Written Information about Medicines	The instruction on your medicine label is easy to read and easy to understand; The pharmacy staff gives you written information about the medicine; The information on the medicine is written in a way that is easy to read and easy to understand.

- a. The Pharmacy Quality Alliance developed a standardized survey that can be used to examine patient assessments of the quality of services they receive during ambulatory care pharmacy encounters. The survey is modeled after similar surveys of physicians and health plans and assesses patient experiences with the key elements of care. The survey focuses on the information flow between pharmacists and patients from the patient's perspective.
- b. Definitions were provided to the focus group participants.

Table 2: Descriptive statistics of the study population (n=57) †

Variable	Number (%)	Mean ± SD ^a
<i>Socio-demographics</i>		
<i>Age</i>		73.94 ± 6.41
<i>Gender</i>		
Male	11 (19.3)	
Female	44 (77.2)	
<i>Ethnicity</i>		
Hispanic	4 (7.0)	
Not Hispanic	50 (87.7)	
<i>Racial background</i>		
White Caucasian	27 (47.4)	
Black or African American	20 (35.1)	
Asian	2 (3.5)	
Mixed Race	5 (8.8.)	
<i>Years of school completed</i>		
8 grades or less	0	
Some high school	4 (7.0)	
High school graduate or GED^b	9 (15.8)	
Some College	16 (28.1)	
College graduate	8 (14.0)	
Graduate degree	17 (29.8)	
<i>Health Insurance plan in the past six months</i>		
An individual plan	2 (3.5)	
A plan through your employer	2 (3.5)	
Military or VA^c Health Plan	1 (1.8)	
Medicaid	6 (10.5)	
Medicare	12 (21.1)	
More than one type of health insurance	32 (56.1)	
I have not had an insurance plan in the past 6 months.	2 (3.5)	
<i>Clinical characteristics</i>		
<i>Self-rated health</i>		
Excellent	3 (5.3)	
Very good	18 (31.6)	
Good	25 (43.9)	
Fair	10 (17.5)	
Poor	0	
<i>Number of prescription medications taken daily</i>		
1	6 (10.71)	5.55 ± 3.40
≥ 2	50 (89.3)	
<i>Number of pharmacies used in the past six months</i>		
1	40 (71.43)	1.26 ± 0.52
≥ 2	14 (25.0)	

<i>Pharmacy Type</i>	
Chain	42 (73.7)
Independent	10 (17.5)
Mail order	1 (1.8)
Internet	2 (3.5)

† 3 individual's survey data was incomplete or missing.

- a. SD= Standard deviation units
- b. GED= General Educational Development for Certificate of High School Equivalency
- c. VA= Department of Veteran Affairs

Table 3: Older Adults' Perception of Evaluating and Comparing Pharmacies based on the CEPSS

Perceptions	Sample Quotations
Older adults supported the idea of evaluating pharmacies based on the domains.	<p>“I think it’s important...to us, the consumer. We need this. We need pharmacies to give us this.”</p> <p>“I think they should be evaluated.”</p>
Several older adults pointed out that many services are compared in today’s marketplace so pharmacy quality should be compared too.	<p>“I think it’s a great idea, and you know, of comparisons, we do it. As consumers, we should have a right to make comparisons...We go to supermarkets, we make comparisons. .. And the same thing with pharmacists— service, oral communication, written communications, pharmacy care, we make a comparison. And what it does is, is when people grade these pharmacies ... that'll bring them up. I think it's a great idea.”</p> <p>“Just like they do for our health insurance companies—the pharmacies need to be held to that same standard.”</p> <p>“They rate the hospitals and they rate the doctors, who’s good and who’s bad, so [why not pharmacies?]”</p>
The evaluation and comparison of pharmacies would have a salutary effect on pharmacies that initially rank low.	<p>“I think an evaluation would be a good thing. That way, they know where they would need to improve and to just get an idea of what the public, their customers, you know, the relationship, and just to make things better. It'll give them an idea of, This is what the public is looking at, from us.”</p>
The evaluation and comparison of pharmacies would be more valuable in urban than in rural locations.	<p>“We have so many different pharmacies in Madison, we’re spoiled. We’re not talking about some little rural community. ... It’s a whole different problem...[when] the next pharmacy is fifty miles away. This [reporting of domains] means nothing.”</p>
The evaluation of pharmacies should focus on specific, quantifiable indicators of quality (e.g. medication safety) and avoid subjective data.	<p>“Well, you know, hospitals are rated and you can read the ratings on the number of people who get infections while in the hospital... the number of people who die in the hospital and that type of thing...because the hospitals are required to provide that information. So what would have to happen is that all of the pharmacies would have to be required to provide certain facts on their outcome of how many people were given the wrong medication, which as far as I'm concerned that's the only important thing they have to rate is how many people are given the wrong medication...Service?...Well,that's subjective.. How long you have to wait. How attentive they are to you...That, again, that doesn't kill you.”</p>
Some older adults would rather use price and pharmacy medication safety in evaluating pharmacies	<p>“As long as they can give me the right medication I don't give a hoot. I go where the price is right and I don't care actually if they have the best price if the pharmacist frowns at me every time....I don't care if they say hurry up and get out of here. I don't care as</p>

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than quality information.	long as their price is right... as long as they are competent... no errors. None of these [CEPSS domains] are related to the pharmacy giving you the wrong darn pill.”
Some older adults are skeptical about the evaluation of pharmacies based on the domains because it is subjective information based on individual preferences.	“I think it's difficult because it's very personal, and it depends... some people like or want more information, others don't want as much. I don't want to spend 10 minutes talking every time... -- about the drug, which our pharmacist is obligated to do, and it's obvious that he's obligated to come over and say, "Do you have any questions?"... to me that's good, but somebody else might want more information. -- so I think it'd be difficult to come up with an objective system that takes in individual choices.”

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Table 4: Older Adults' Perceived Importance of the Consumer Experience with Pharmacy Services Survey (CEPSS)

Objective	Perceptions	Sample Quotations
Importance of the CEPSS	The CEPSS may help in avoiding worst providers and choosing the best pharmacies.	“It rules out the worst case scenarios for you. If you've got eight to pick from, I would go with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that way at least you can narrow the field down.”
	The quality domains may confirm older adults' experience with their pharmacy.	“It might change my perceptions of where I'm going...or it might confirm that I am where I want to be, however they are rated on these various things.”
Perceived importance of specific CEPSS domains	<i>Health and Medication-focused Communication</i> (HMC) is the most important quality domain that would prompt older adults to switch pharmacies.	<p>“I like information...and if you can't talk to me, especially about the interaction between medications, then I have no reason to go to that pharmacy.”</p> <p>“The reason I go to the pharmacy is to get medicine, and if I go to get my medicine, I want the communication to be perfect... I want them to tell me how long and when I should take it. I want all the information about my medication before I take it. So, I said [HMC], because it's the real reason I'm in there. I came to you for medication, I want everything explained to me.”</p> <p>“I'm already sick and what I put in my body- It's so important that it can change or alter me in a negative way. So, I agree with the young lady right here, because she's right you know, I'm sick. I can't get any sicker. So, I want to heal. So the health and medication-focused communication. I want to know what I'm taking. What it does to me, the side effects, how it's going to help me, whether side effects or no side effects, how long I have to take it, the longevity. Do I have to take it the rest of my life? Do I have to take it for a short period of time? And as long as it's communicated to me, I'm good to go.”</p>

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Health and Medication-focused Communication is important compared to other CEPSS domains.

“...the medication related communication. That's what you're going to the drug store for. The rest of the stuff you can put up with or find someplace else, as in written communication.”

“Yeah, that for me is just essential. If I can't get my medication related questions addressed and answered by the pharmacist, the rest of that stuff doesn't even rise to the top. I can deal with a staff who doesn't communicate well I can, you know, the rest of that, I still am at a point where I can deal with. But, if I'm not getting that communication about what's being sold to me for my health, I'm out of there.”

Pharmacy staff Communication (PSC) is the most important quality domain that would prompt older adults to switch pharmacies.

“If you treat me with disrespect, I don't think I'm going to be a very good customer. Like I said before, I'm spending my money... I am not used to spending my money when I have to be treated like a dog!”

“It helps if the staff would greet people with a smile and courtesy at all times.... If you're having a bad day and you work with this pharmacy, you really got a portion of my life in your hands. You're filling my prescription here. So don't be angry while you're filling my meds, you may throw the wrong thing in there... it just helps to be courteous. If I'm a confused old lady and I don't understand this medicine and I'm confusing you, please call your manager and have her explain to me. Just treat that person with respect first.”

“... I left my old pharmacies for the same reason as number 2 [PSC]...I would really like to feel comfortable while I'm at a place and I'd like to know that the people know who I am and what I'm there for. Getting lost in the shuffle, I ain't down with that. If you can't talk to me and call me by name or a number or something, there's definitely going to be change”

Pharmacy Staff communication is important compared to other CEPSS

“...I don't count on the pharmacist as the expert about my health. And, if I have a medication-related communication, I might ask the pharmacist but I'm more likely to look it up online or go through My

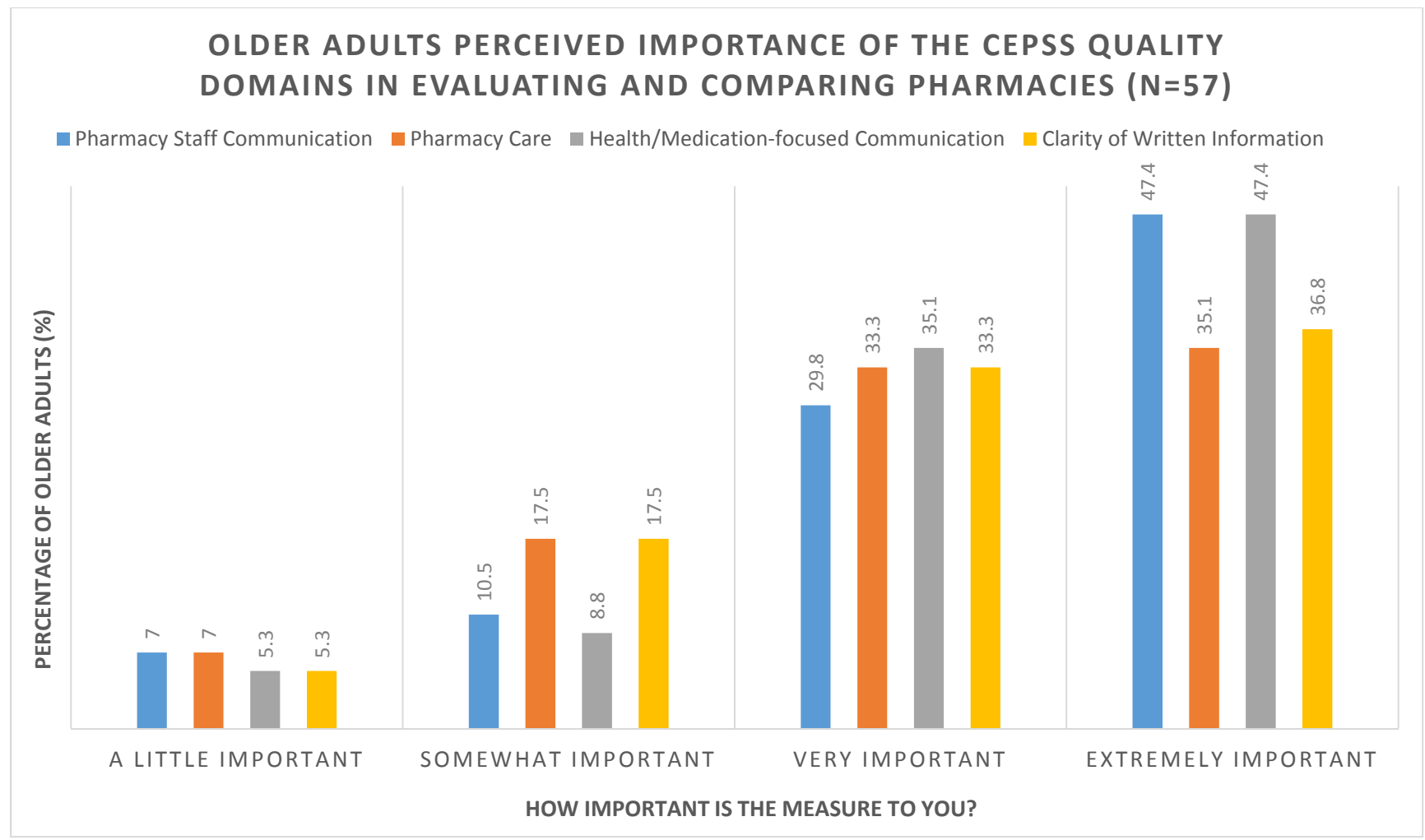
domains.	Chart with my general practitioner. But, being treated with respect by the pharmacy staff is very important.”
<i>Clarity of Written Information (CWI)</i> is the most important quality domain that would prompt older adults to switch pharmacies.	<p>“I would want to make sure that...they have my prescriptions correctly labeled and written and also that, when they give me information on how to take that prescription and how it would react with other medicines, you want that to be correct... it gives me an understanding about my medication ... you know, what shape and color the pill is...”</p> <p>“I would change just for that reason [CWI], yes, because that's important to me. My medication is why I'm there in the first place. I want the correct information about it. So, yes that would make me change, if they didn't have that straight.”</p>
<i>Pharmacy Care</i> is the most important quality domain that would prompt older adults to switch pharmacies	“The pharmacy care is very important for me, because with the interaction [with the pharmacist] you can do other things that are related to my condition and then the concern of the staff for my condition; I think that pharmacy care is the most important for me.”
<i>Pharmacy Care</i> is important compared to other CEPSS Domains	“...that's [pharmacy care] going to cover everything, the care from my pharmacist, my interaction with my pharmacist, everything with the pharmacist is going to cover my medication, communication, ... - if that was not up to par, if that was really poor-quality low, then that would cause me to go elsewhere.”

Table 5: Older Adults' Perceptions of the Influence of the Consumer Experience with Pharmacy Services Survey (CEPSS) in choosing/switching pharmacies

Objective	Perceptions	Sample Quotations
Perceived influence of the CEPSS in choosing pharmacies	Some older adults will use the CEPSS, in addition to other factors, to choose pharmacies.	"I think these [CEPSS domains] are important factors, but, there are other factors that I would look at in choosing a pharmacy like having complaints about inaccuracy, storing prescriptions, their billing, location, local variety of other items available in the store. So, this is only one group of factors I'd take in choosing a pharmacy. And there are the other factors that'd be equally or more important."
	Older adults think using the CEPSS to choose pharmacies will outweigh the use of convenience.	"... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then somebody recommended someplace else but it was inconvenient. But it turned out... it was worth the inconvenience, because the staff there was really concerned and I wasn't afraid to ask them questions."
Perceived influence of the CEPSS in switching pharmacies if current pharmacy had low ratings in domains	Some older adults would discount or ignore the low ratings of their pharmacy, placing more stock in their own experiences of their pharmacies.	"I would ignore -- I'm very happy with my pharmacist and my pharmacy. And it wouldn't make any difference what the report said. I mean, I've been to different pharmacists in the past and where I'm at now they know me by name, they talk -- I mean it's just a very friendly relationship, and if I saw that they had a poor rating, I would really question the people that did the study."
		"I agree with 1001, I've been using this pharmacy for a number of years, it meets all these criteria, I would give it, you know, high marks on all this criteria, so I don't think I would change my use of that pharmacy."
	Personal experience with a pharmacy may override the switch of pharmacies based on the CEPSS.	"I probably wouldn't use [the CEPSS] because I'm happy with mine and I'd say they'd cut another tree down to write a report on stuff that is pretty obvious because you either go in there and you're happy or you're not happy and you go someplace else.... experience means more than the report."
	Some older adults would	"It might be down the road a little further, but I'd be looking for another

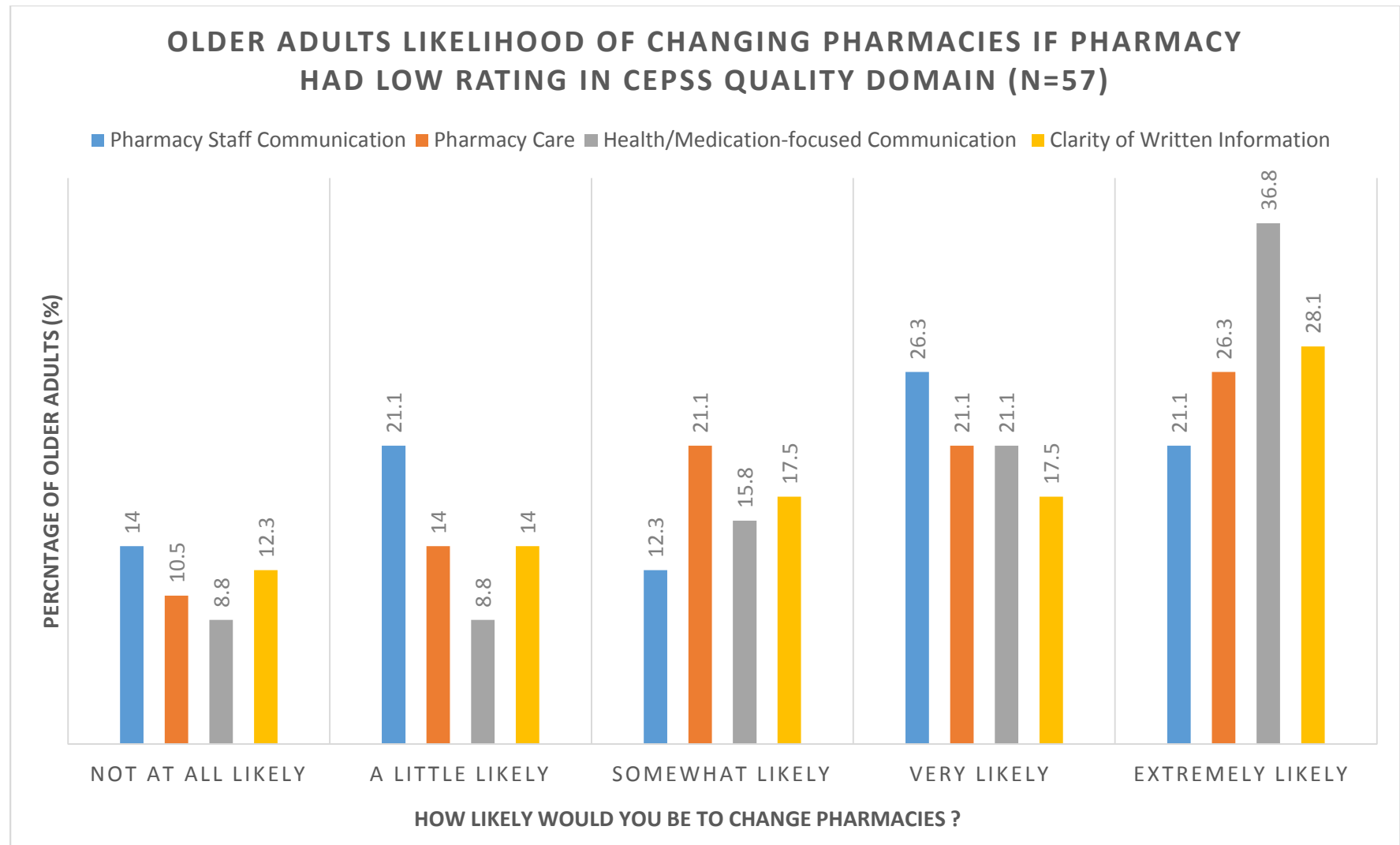
1 2 3 4 5 6 7	change their pharmacies if they found their pharmacy rated low in the domains.	pharmacy.” “Get your running shoes!”
8 9 10 11 12	A switch in pharmacy will only occur if there is a negative personal experience.	“I don't think I would change my pharmacy unless I had a bad experience at the one I went to....a personal experience.”
13 14 15 16 17 18 19 20 21 22 23 24 25 26	A switch in pharmacy will occur because the CEPSS is based on other consumers' experiences.	“I know the best information comes from my peers, the other people that are using the pharmacy....If there was a report that I knew that my peers contributed to that information and it said the pharmacy that I'm using right now is like, at the bottom of the list, I'd just leave... I'd be trying to get to the one that is at the top of the list, because I want to be treated fairly, I want to be acknowledged when I come up in there, ... Some pharmacies have issues with having staff that are not as knowledgeable as others. And we don't know that. We just go there and get our prescriptions, but if I see a report that says, 'Out of 100 people, everybody says (Pharmacy name) on that corner is the best because they felt well treated...., in communication they had time, the pharmacies were listening to them.' ... I would definitely I'd be out of there.”
27 28 29 30 31	Some older adults would want to know why their pharmacy rated low	“I'm going to the manager of that pharmacy and saying, “Look, this is where you've reached, can we do something about this?” And see what the reaction is. If it's, 'Oh, we'll try to do better,' I might stay, but if they don't come up to my satisfaction or to the number one, then I leave.”

Figure 1 (Questionnaire Results)



a. Using a five point Likert scale, participants ranked the importance of each CEPSS domain in evaluating and comparing pharmacies. Response options were ‘Not at all important’ to ‘Extremely important’. ‘Not at all important’ was not selected for any of the domains.

Figure 2 (Questionnaire Results)



a. Using a five point Likert scale, participants ranked how likely they would change their pharmacies based on a low rating in each CEPSS domain. Response options were ‘Not at all likely’ to ‘Extremely likely’.

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Using the Consumer Experience with Pharmacy Services Survey as a Quality Metric for Ambulatory Care Pharmacies: Older Adults' Perspectives

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3 **Using the Consumer Experience with Pharmacy Services Survey as a Quality Metric for**
4 **Ambulatory Care Pharmacies: Older Adults' Perspectives**
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27 Key words: Quality in health care, Quality measures, Pharmacy, Older adults, Patient
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29 experiences
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31 Word count: 5566
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Abstract

Objectives: To describe older adults' perceptions of evaluating and comparing pharmacies based on the Consumer Experience with Pharmacy Services Survey (CEPSS), describe older adults' perceived importance of the CEPSS and its specific domains, and explore older adults' perceptions of the influence of specific CEPSS domains in choosing/switching pharmacies.

Design: Focus group methodology was combined with the administration of a questionnaire. The focus groups explored participants' perceived importance of the CEPSS and their perception of using the CEPSS to choose and/or switch pharmacies. Then, using the questionnaire, participants rated their perceived importance of each CEPSS domain in evaluating a pharmacy, and the likelihood of using CEPSS to switch pharmacies if their current pharmacy had low ratings. Descriptive and thematic analysis were done.

Setting: Six semi-structured focus groups were conducted in a private meeting room in a Mid-Western state in the USA.

Participants: Sixty English-speaking adults who were at least 65 years, and had filled a prescription at a retail pharmacy within 90 days.

Results: During the focus groups, the older adults perceived the CEPSS to have advantages and disadvantages in evaluating and comparing pharmacies. Older adults thought the CEPSS was important in choosing the best pharmacies and avoiding the worst pharmacies. The perceived influence of the CEPSS in switching pharmacies varied depending on the older adult's personal experience or trust of other consumers' experience. Questionnaire results showed that participants perceived health/medication-focused communication as very important or extremely important (n=47, 82.5%) in evaluating pharmacies and would be extremely likely (n=21, 36.8%) to switch pharmacies if their pharmacy had low ratings in this domain.

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3 Conclusions: The older adults in this study are interested in using patient experiences as a quality
4 metric for avoiding the worst pharmacies. Pharmacists' communication about health and
5 medicines is perceived important and likely to influence older adults' pharmacy selection.
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Article Summary

Strengths and limitations of this study

- For the first time, research examines older adults' perceptions of pharmacy patient experience measures, which is important as pharmacy quality organizations aim to include patient experiences as part of a pharmacy's quality metrics.
- This is the only study to examine whether older adults perceive patient experience measures (that may be publicized in pharmacy quality reports) as important or useful in their healthcare provider selection.
- This study is significant in improving the quality of care provided by pharmacy providers as the pharmacy profession moves towards the development of quality ratings that can be understood and used by patients to inform their pharmacy selection.
- Limited geographical area.
- Convenience sample.

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Competing interests: None

Patient consent: Obtained.

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3 **Author's contribution:** OOS and DM designed the study. OOS and KC were involved in data
4 collection and data analysis. OOS and KC wrote the manuscript and DM critically revised the
5
6 content. All authors approved the final version of the manuscript.
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10 **Data sharing statement:** No additional data are available.
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BACKGROUND

Public reporting of quality-of-care information has been suggested as a means for patients to actively choose best performing providers that deliver quality and efficient care.¹ With access to provider performance data, it is assumed that patients are aware of the differences in quality-of-care and can make an informed decision based on this information.² It is expected that when patients become selective of their healthcare providers based on publicly available performance information, providers will be forced to improve quality-of-care so that they can maintain their reputation and stay competitive.³

Although work has been done to encourage patients to utilize provider performance information to choose their healthcare providers, it is disconcerting to know that available public reports are not commonly used by patients, and the public reports do not have a substantial effect on patients' decision making.^{2,4} This is due to a myriad of factors, including a lack of awareness of available provider performance information and low perceived usefulness of the information.^{3,5-7} In addition, it is reported that patients do not have an interest in using provider performance information because the information presented is irrelevant and contains provider performance measures that are not understandable.^{8,9}

As it relates to pharmacy choice, our previous studies showed that patients do not understand the meaning and interpretation of pharmacy performance measures and few individuals are likely to use them to make an informed pharmacy choice.^{8,10,11} It has been suggested that one way to get patients to use quality information in guiding their provider choice is to consider the features of quality that patients care about and that patients believe are relevant to their choice.^{12,13}

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Patient care experience measures are increasingly used in public reporting to highlight the patient's perspective of their care.¹⁴ Standardized patient surveys such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey is a mechanism through which the information and experiences that patients gain while utilizing health services can be captured and summarized.¹⁵ Although data describing patients' health care experiences might be used by consumers to choose better performing providers (e.g., hospitals) as well as hold them accountable¹⁶, no one facilitated the development of patient care experience surveys for the care provided in ambulatory (outpatient) pharmacies until recently. A standardized survey, the Consumer Experience with Pharmacy Services Survey (CEPSS), has been developed for patients' evaluation of pharmacy services received in an ambulatory care setting.^{15,17}

The CEPSS was developed as a mechanism for benchmarking the quality of pharmacy services provided by pharmacists nationwide. Most patients utilize a pharmacy for ambulatory care services such as filling a prescription medication, obtaining medication information about an over-counter drug, or getting advice about disease self-management.¹⁵ With the CEPSS, the information relevant to pharmacy quality based on patients' interactions with pharmacists can be captured from survey responses. Based on the CAHPS initiative, the CEPSS is a reliable and valid survey to capture patient perceptions of pharmacy quality. There are four measures of pharmacy quality within the CEPSS: Pharmacy Staff Communication, Health- and Medication-Focused Communication, Pharmacy Care, and Clarity of Written Information about Medicines (Table 1). Similar to the CAHPS survey, the rationale for the CEPSS is that it can be used by healthcare organizations, insurers, and patients as a quality metric in evaluating and comparing a pharmacy's performance and ultimately motivate patients to choose high quality pharmacies.^{15,17}

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Previous studies have reported mixed results related to the usefulness of the CAHPS survey in patients' evaluations of hospitals and health plans^{1,2,18-20 21,22}, and the importance of the CAHPS measures in patient decision making.^{1,23,24} Since the development of the CEPSS, no research has examined whether patient experience information might be useful to patients' evaluations of pharmacies and if the CEPSS is important in patients' decision making concerning their pharmacy. Also, we do not know if patients' perceptions of the usefulness of the CEPSS are similar to reported usefulness of the CAHPS survey. In our previous study, patients with chronic illnesses who discussed the usefulness of clinical pharmacy quality measures also wanted to see consumer experience quality metrics.¹¹ It is assumed that the CEPSS will be important to pharmacy consumers for several reasons. For example, a pharmacist may ensure the accuracy of a prescription medication, check the appropriate labeling of a prescription medication, and ensure the safe administration of the medicine by checking for drug interaction. Based on clinical quality metrics, this pharmacy may be ranked as "high technical quality." However, the pharmacist may not give the patient the amount of time and attention needed, answer their questions appropriately, or offer private counseling spaces during the discussion of sensitive health issues. These aspects of pharmacy quality can only be evaluated based on patient input and experience.¹⁵ Hence, the CEPSS can be important as a quality metric in facilitating patients' pharmacy choice.

This study focuses on older adults' perceptions of using the CEPSS to evaluate and compare pharmacies, their perceived importance of the survey, and the perceived influence of the survey in their pharmacy selection. The research is significant to older adults because they use a lot of medicines, are more likely to have a chronic condition and are at risk for preventable adverse drug events.²² Because of these reasons, they are more likely to talk to the pharmacist

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3 about their prescription medicines and utilize pharmacies for medication reviews, disease
4 management, and other pharmacy services.²⁵ Exploring older adults' perceptions of the CEPSS
5 will allow this information to be utilized in the development of public reports that will help them
6 identify better performing pharmacies.
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12 According to Hibbard et al. 2002's theoretical consumer choice model²⁴, a psychological
13 process takes place in a patient's mind before they proceed with a behavior (i.e., provider
14 decision making using quality information). Specifically, the model proposes that patients need
15 to be aware of the availability of quality information, trust the information, and perceive the
16 information as useful to them (the psychological processes) before it can be used in their
17 decision making (the behavior).^{2,5,24} This study explores, in part, these psychological processes
18 among older adults who could potentially use pharmacy quality information.
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29 **OBJECTIVES**

30 The objectives of the study are to 1: Describe older adults' perceptions of evaluating and
31 comparing pharmacies based on the CEPSS, 2: Describe older adults' perceived importance of
32 the CEPSS and its specific domains, and 3: Explore older adults' perceptions of the influence of
33 specific CEPSS domains in choosing/switching pharmacies.
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40 **METHODS**

41 **Sample**

42 The convenience sample for this study consisted of English-speaking individuals who had filled
43 a prescription at a retail pharmacy within 90 days of recruitment and who were at least 65 years
44 of age. The authors partnered with staff at senior apartment facilities and community centers to
45 recruit participants by means of email announcements, word of mouth, and flyers. Participants
46 were informed of the study's eligibility criteria, objectives, and compensation for participating
47 (\$50 cash). Recruiters enlisted the participation of both men and women who had the capacity
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3 and ability to provide consent. The Education and Social/Behavioral Science Institutional
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5 Review Board of the University of Wisconsin-Madison approved the recruitment design and the
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7 overall study. Based on the number of participants who responded to the recruitment efforts, 60
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9 people were recruited to six focus groups. There were no drop-outs or refusals to participate.
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12 **Study Design and Data Collection**

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15 Using a phenomenology approach, focus groups were chosen as the data collection method
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17 because the ways in which older adults think about and might use pharmacy patient experience
18
19 measures are insufficiently understood. Focus groups allowed for gathering and exploring a wide
20
21 range of perspectives on pharmacy quality. A semi-structured questioning route was developed
22
23 by the authors and used at all six groups. The focus group guide was not pilot-tested prior to the
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25 study commencement. The participants were informed of the reasons for conducting the research
26
27 and the reason for the investigators' interest in the research topic. One of the authors (KC), a
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29 trained male focus group moderator and a PhD-trained cultural anthropologist, who has 20+
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31 years of experience conducting qualitative research, facilitated the groups. All groups were
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33 attended by the study's principal investigator (OS). Field notes were taken by OS during the
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35 focus groups and discussed with the moderator. Senior apartment facilities and community
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37 centers in Madison, Wisconsin, served as venues for the groups. The groups took place from
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39 May–July 2014 and lasted approximately 90 minutes each. Participants were not given any
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41 information about CEPSS before completing the focus groups.
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48 To explore the triangulation of results, a brief 10-minute, 12-item questionnaire was self-
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50 administered at the end of the focus groups. The questionnaire asked participants to rate the
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52 importance of each specific CEPSS domain in evaluating pharmacies (on a five point Likert
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54 scale, response options were “Not at all important” to “Extremely important.” Also, on a five-
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3 point Likert scale, participants indicated their likelihood of changing pharmacies if a pharmacy
4 rated low in a specific domain (response options were “Not at all likely” to “Extremely likely”).
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8 Participants’ demographic information was also collected.
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10 **Analysis**

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12 The analysis in this article focuses on the following questions, which are a subset of questions
13 administered at the groups:
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- 15 • I will ask you to imagine that you had access to a report that compares pharmacies based
16 on all the aspects of pharmacy quality that we have been talking about (The following
17 measures of pharmacy quality, including their definitions, which had been discussed
18 individually, were displayed on a flipchart to facilitate participant discussion of the
19 present question: Health and medication-related communication, Pharmacy staff
20 communication, Pharmacy care, Clarity of written information provided with
21 medications). (See table 1 for descriptions). Imagine that the report would tell you which
22 pharmacies do better and which do worse on these aspects of pharmacy quality. What
23 would you think about pharmacies being evaluated and compared on these aspects?
24
25 • What would you do if you read such a report and saw low quality ratings for your
26 pharmacy?
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28 • Which aspect of pharmacy quality, if you found it rated low in a report, would prompt
29 you to change your pharmacy? What is important to you about this factor?
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31 • What are your thoughts on how to distribute a report on pharmacy quality to pharmacy
32 customers?
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53 The focus groups were audio recorded, transcribed verbatim by a certified transcriptionist, and
54 independently coded by two of the authors (OS and KC). NVivo® version 10 (QSR
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3 International, Burlington, MA) was used to organize the data and to categorize the themes. Data
4
5 saturation was discussed by OS and KC. Transcripts were not returned to participants for
6
7 comments or corrections. The authors used descriptive coding, which is a method of coding
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9 qualitative data whereby words or short phrases are assigned to segments of text to capture their
10
11 essential ideas, and to enable comparison of similar ideas across the entire qualitative data set (in
12
13 our case, across all transcripts).²⁶ The authors coded all transcripts independently and discussed
14
15 coding divergences. They reached agreement on the application of all codes. All themes were
16
17 derived from the data and were not identified in advance. The participants did not provide
18
19 feedback on the findings.
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24 RESULTS

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26
27 There were 60 older adults in this study. Participants' ages ranged from 65 to 88 years
28
29 old. At least 8 participants with a maximum number of 12 participants were included in each
30
31 focus group. The composition of each focus group is published elsewhere.¹³ The highest
32
33 proportion of older adults were female, white, had a graduate degree and self-reported having
34
35 good health. (Table 2). Based on the study objectives, four major themes emerged from the focus
36
37 group.
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40
41 First, older adults' perceived the CEPSS to have certain advantages and disadvantages in
42
43 evaluating and comparing pharmacies. Second, older adults thought the CEPSS was important in
44
45 choosing the best pharmacies and avoiding the worst pharmacies. Third, older adults perceived
46
47 the CEPSS would be influential in their decision to choose a pharmacy. Fourth, older adults'
48
49 perception of the CEPSS influence in switching pharmacies varies depending on the individual's
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51 personal experience or trust of other consumers' experience. Additional themes are also
52
53 described.
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3 The study's overall findings are grouped based on the objectives of the study.
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5 **Objective 1:** The objective was to describe older adults' perceptions of evaluating and
6 comparing pharmacies based on the CEPSS.
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10 Major theme 1: Older adults perceived the CEPSS to have certain advantages and
11 disadvantages in evaluating and comparing pharmacies. Some older adults supported the use of
12 CEPSS to evaluate and compare pharmacies because many health services are compared in the
13 market place and the evaluation would have a salutary effect on pharmacies that were initially
14 rated as low quality (Table 3)
15
16

17 *"I think it's very useful. They rate hospitals nationwide. You can go and look up how your
18 hospital rates. I think you should be able to do that for your pharmacy."
19*

20 *"Everybody would get better or do the job better knowing somebody is watching over them.
21 I think they would do a better job if they know somebody out there is watching over them
22 and grading them."
23*

24
25 On the other hand, some older adults were not supportive of using the quality domains to
26 evaluate pharmacies because it was not based on quantifiable clinical indicators of quality but
27 based on subjective information.
28
29

30 *"If you're real unhappy cause you have to wait [in line], go to a different pharmacy! But
31 the only important thing to get out of a pharmacy is the proper medication and the cost and
32 those are the only two things that are life and death, just as in a hospital. The service you
33 get, whether you're going to get an infection, whether you're going to get a pharmacist who
34 has a poor record...those are the important things, whether they make errors and whether
35 their cost is prohibitive."
36*

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38 Additional minor themes were identified:
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Credibility of the quality information was an important consideration in the use of CEPSS as a quality metric for pharmacies. Older adults stated that their trust (credibility) of the quality information would depend on the information source, timeliness of the information, and whether the quality information was based on the CEPSS or other objective quantifiable data.

Verbatim statements included:

Credibility of the information

“Who’s doing the judging...? Because you get all kinds of commercial interests involved, and public interests involved, and government interests involved.”

“If they’re going to be rated, then we have to look at who’s doing the rating. If it’s the customer that would be one thing, if it’s some outside source that knows what they’re looking for but may not have a direct relationship, that’s another thing.”

Timeliness of the information

“How are you going to have it be accurate by the time it would get in the hands [of patients], because any self-respecting pharmacist is going to try and fix whatever the problem is.”

CEPSS versus objective data

“Subjective information, that’s a problem. However, there are certain factual things [that could be included in a quality report]. I had a pediatrician when my children were little...He said, ‘I have called every pharmacy in [town name] with the ten prescriptions I most often prescribe. And, they’re cheaper here, they’re more expensive there.’...The idea that a doctor actually took the time to find out what his patients were having to pay for the same medication from place to place, that was really a fine thing that he did. That’s the kind of research that’s factual.”

1
2
3 Older adults also suggested that a valid and transparent report on pharmacy quality would
4
5 need to say:
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7
8 *“Who’s doing the evaluating, what are the actual criteria on which they’re being*
9
10 *evaluated...It would help you determine whether this report is valid.”*
11

12
13 *“What’s the standard [used for evaluating]? What does selection mean or what does*
14
15 *attention [to customers by pharmacy staff] mean?”*
16

17
18 Other minor themes: Dissemination of a quality report containing CEPSS information was
19
20 important to older adults in using the survey domains.
21

22
23 Older adults volunteered some thoughts on how often the quality report should be compiled,
24
25 including how to structure the report, and means and locations for wide dissemination including
26
27 the internet, pharmacies, doctors’ offices, and American Association of Retired Persons (AARP)
28
29 magazines. Verbatim statements included:
30

31
32 *Compilation of quality report*
33

34
35 *“You would have to do this [report] fairly often [because lower-ranking pharmacies would*
36
37 *improve right away].”*
38

39
40 *Structure of quality report*
41

42
43 *“I think there’s two different ways it could be done. You can rate the individual stores or you*
44
45 *could rate (Chain Pharmacy A) versus (Chain Pharmacy B), like the whole corporation and*
46
47 *I think it would have greater value rating the individual stores but that would be harder to*
48
49 *do.”*
50

51
52 *Dissemination location for quality report*
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55 *“If you can go by the internet and see—at the pharmacy that I go to, for example, I can*
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57 *enter in the webpage and see if they have a good evaluation.”*
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"I think a report should be included with your prescription. When you go there to pick it up, the pharmacist should say, 'Here is a report'."

"I would love to have my doctors know which pharmacies are really doing well so that when... I'm in the office [and]... they're going to prescribe a new medication, they could say, 'We know that the following three pharmacies not only routinely stock this but are charging a reasonable price for it.' Now, that doesn't say that's where you have to go. But, I'm not having to get to my pharmacy, which is a small one, and suddenly find out that we're going to have to wait a few hours for them to get it to me."

"I think, since everybody here gets AARP, that would be a real good way, because everybody usually goes through the magazine here or the book that you get and knowing that they're behind this 100%, which they should be, since they are doing more representation of the older population."

"One other way you could get it around is to have in newspapers and on TV that it is available and here is who you contact to get it. If you don't have a computer you can do that by mail and if you do you can request it on the Internet."

Objective 2: The objective was to describe older adults' perceived importance of the CEPSS and its specific domains.

Major theme 2: Older adults thought the CEPSS was important in choosing the best pharmacies and avoiding the worst pharmacies. (Table 4)

"It rules out the worst case scenarios for you. If you've got eight to pick from, I would go with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that way at least you can narrow the field down."

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3 While all the CEPSS domains were important, some older adults strongly supported
4 specific domains compared to others – i.e., health and medication-focused communication and
5 pharmacy staff communication were both perceived as the most important quality domains.
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10 These results are further confirmed in our questionnaire results.
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12
13 *“I think medication-related communication is the most important and as [participant name]*
14 *says it's the main purpose of the pharmacy... Anything else is extra.”*
15

16
17 *“...I don't count on the pharmacist as the expert about my health. And, if I have a*
18 *medication-related communication, I might ask the pharmacist but I'm more likely to look it*
19 *up online or go through My Chart (a secure online service that allows a patient to*
20 *communicate with their healthcare provider) with my general practitioner. But, being*
21 *treated with respect by the pharmacy staff is very important.”*
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29 **Objective 3:** The objective was to explore older adults' perceptions of the influence of
30 specific CEPSS domains in choosing/switching pharmacies.
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34 Major theme 3: Older adults perceived the CEPSS would be influential in their decision
35 to choose a pharmacy. (Table 5)
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39 *“... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of*
40 *convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then*
41 *somebody recommended someplace else but it was inconvenient. But it turned out... it was*
42 *worth the inconvenience, because the staff there was really concerned and I wasn't afraid to*
43 *ask them questions.”*
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51 However, some older adults would rather use price and pharmacy medication safety
52 information to choose pharmacies instead of the CEPSS.
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“As long as they can give me the right medication I don't give a hoot. I go where the price is right and I don't care actually if they have the best price if the pharmacist frowns at me every time....I don't care if they say hurry up and get out of here. I don't care as long as their price is right... as long as they are competent... no errors. None of these [CEPSS domains] are related to the pharmacy giving you the wrong darn pill.”

Major theme 4: Older adults' perception of the CEPSS influence in switching pharmacies varies depending on the individual's personal experience or trust of other consumers' experience. (Table 5).

Some older adults would switch pharmacies because CEPSS information is based on other consumers' experiences. Other older adults would place greater importance on their own personal pharmacy experiences than other consumers' experiences.

“I don't think I would change pharmacies if my own personal experience were good in all those areas... and others might've had a bad experience.”

When the older adults discussed what specific CEPSS domain would cause them to switch pharmacies if their pharmacy rated low, health and medication-focused communication and pharmacy staff communication were more frequently described as the quality domains that would cause them to switch their pharmacies.

“I take 17 different prescriptions. And, if I couldn't depend on them (the pharmacy) to have accurate... information or the actual medication part of it, if I couldn't trust that, then, I guess, I would have to consider changing.”

“...you can ask about anything you want to if you have a good communication with staff. If you don't have a good communication with the staff, I feel like you're lost, absolutely lost. So... If I was missing that, I'd go someplace else.”

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3 **Questionnaire results-** Importance of the specific CEPSS domains and its use in
4
5 choosing/switching pharmacies
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8 Fifty-seven participants completed a questionnaire. Three participants had missing data. Patients
9
10 reported that all the CEPSS domains were extremely important in evaluating and comparing
11
12 pharmacies. However, the largest percentage of older adults thought pharmacy staff
13
14 communication (n=27, 47.4%) and health/medication focused communication (n=27, 47.4%)
15
16 were extremely important in evaluating and comparing pharmacies. (Figure 1).
17

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19 Overall, low ratings in all the CEPSS domains were likely to lead to a change in pharmacy.
20
21 Twenty-one participants (36.8%) reported being extremely likely to change their pharmacy if it
22
23 had low ratings in health/medication focused communication. The lowest percentage of older
24
25 adults (n=12, 21.1%) would be extremely likely to change their pharmacy if their pharmacy
26
27 reported low ratings in pharmacy staff communication (Figure 2).
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30 31 **DISCUSSION**

32
33 This study showed that older adults perceive the CEPSS as important in evaluating and
34
35 comparing pharmacies. Pharmacy quality information based on the CEPSS is likely to influence
36
37 older adults' pharmacy selection in varied circumstances. The pharmacist's communication
38
39 about medicines and health is perceived as the most important domain within the CEPSS. Low
40
41 ratings in this domain are also likely to influence older adults' pharmacy choice and to lead to a
42
43 possible switch in pharmacy.
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47 Older adults thought that the use of the CEPSS to evaluate and compare pharmacies had
48
49 certain advantages and disadvantages. This result is consistent with research showing how
50
51 patients use data from the CAHPS survey in evaluating health plans and hospitals.^{23,24} In the
52
53 current study, some older adults supported the CEPSS because many health services were
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3 already compared in the market place and they perceived that an evaluation would have a
4
5 beneficial effect on initially low-rated pharmacies. Hibbard et al., 2003 showed that publicizing
6
7 hospital performance information led to higher quality among hospitals whose performance were
8
9 initially low.²⁷ Currently, there is no conclusive evidence of the effect of quality reports on
10
11 improved quality of healthcare services. Schaffler and Mordavsky, 2001 reported that the public
12
13 reporting of provider performance information did not affect patients' decision making, or lead
14
15 to provider competition and improved quality care.²⁸ This result might vary by the type of
16
17 healthcare service being received. For example, in a systematic review, it was concluded that
18
19 public reporting stimulates quality improvements in hospitals.¹⁸ However, in the same review, it
20
21 was reported that its effect in stimulating quality among health plans is mixed.¹⁸ Future research
22
23 needs to examine whether publicly available pharmacy quality information stimulates quality
24
25 improvement in ambulatory care pharmacies.
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32 Some older adults were not supportive of using the CEPSS to evaluate pharmacies
33
34 because the CEPSS is not based on quantifiable objective indicators of quality but rather on
35
36 subjective information compiled from patients. Patients have been reported neither to understand
37
38 ²⁹ nor to use objective quality metrics, in their healthcare decision making.^{9,30} Also, no
39
40 comparative pharmacy information based on objective quality metrics are presently being
41
42 publicly reported to patients. Objective quality metrics like the 'High Risk Medication in the
43
44 Elderly' can be used by older adults to differentiate high quality pharmacies from low quality
45
46 pharmacies. Efforts to disseminate this information to older adults as a mechanism for them to
47
48 choose quality providers when they are seeking care is needed urgently.
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53 Older adults will use the CEPSS to avoid the worst pharmacies. In a previous study,
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55 patients stated that they were likely to use quality information to avoid poor quality providers,
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3 rather than to seek out the best quality provider.^{11,31} This result has implications for older adults.
4
5 Older adults use a lot of medicines and possibly need pharmacists' help with medication
6
7 management. It is important to educate older adults that they need to actively seek quality care.
8
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10 Quality information should not only be used when they are disappointed with their current
11
12 provider. The public reporting of pharmacies' CEPSS information will enhance older adults'
13
14 active process of seeking high quality pharmacies. With access to quality information, patients
15
16 will be aware of the variation in the quality of pharmacies, they will increasingly become
17
18 selective of the pharmacy they visit to fill their prescriptions and get their care, and pharmacies
19
20 will make performance improvements to stay competitive.³
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25 In the selection of a pharmacy, older adults would likely use the CEPSS to finalize their
26
27 decision making when choosing between several pharmacies. This is somewhat promising.
28
29 Previous research shows that the reputation of a healthcare provider,⁴ price,³² and family/friends
30
31 referrals^{9,33} are factors patients use in choosing a healthcare provider. Also, location and
32
33 convenience have historically been important and used by patients in the initial selection of a
34
35 pharmacy.^{34,35} However, this current study showed that when the choice of pharmacies has been
36
37 narrowed down, quality information might be used in making the final decision.
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42 Though older adults think the CEPSS is important, some participants would still rely on
43
44 their personal experience rather than the survey. Specifically, some older adults preferred to use
45
46 their own experience in judging quality, rather than the experience of others. This was surprising
47
48 since the CEPSS is based on other patients' personal experience and one would expect older
49
50 adults to actively use this information to choose their pharmacies. On the other hand, it was
51
52 encouraging to know that some older adults would rely on the evaluations of their peers in
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54 changing pharmacies. Past research shows that patients value other consumers' evaluation of
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3 their healthcare experience.³⁶ Patients like to use satisfaction measures in decision-making,
4 especially if the responses are from people like themselves who are making similar choices.³⁷
5
6 This finding further shows the potential value of publicly reporting pharmacy quality information
7
8 based on the CEPSS. Future research should consider the appropriate format and/or content of
9
10 comparative pharmacy quality information.
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15 Older adults perceive that they would need to have a personal negative experience before
16
17 they would switch their pharmacy based on the CEPSS. Patients who viewed physician
18
19 performance information reported the likelihood of changing physicians if he/she performed
20
21 badly in a quality report.³⁸ Previous studies have showed that when patients are satisfied with
22
23 the care they receive from their healthcare provider, they become loyal and less likely to switch.
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26
27^{39,40} Usually, it takes having a number of bad experiences before consumers would feel
28
29 dissatisfied and possibly switch their pharmacy.³⁹ If older adults wait to have a negative
30
31 experience in their pharmacy before a decision to seek a higher quality pharmacy is made, a
32
33 preventable negative medication adverse effect might occur and lead to serious consequences.
34
35 Due to the multiple chronic conditions and high number of medicines used by older adults, they
36
37 are more likely to need additional care from their pharmacist. Older adults are more prone to
38
39 preventable adverse events and should therefore seek quality providers in their care.
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44 The focus groups and questionnaire results from this study showed that all domains
45
46 within the CEPSS were considered important. However, based on participants' questionnaire
47
48 ratings, there was variability in patient perceptions of the importance of each specific CEPSS
49
50 domain. The questionnaire results confirmed that health/medication focused communication and
51
52 pharmacy staff communication were the most important specific CEPSS domain. These results
53
54 are not surprising. Hassel et al., 1999 showed that patients use community (retail) pharmacies
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3 because they perceive the pharmacy staff to be experts on medicines, have time to talk compared
4 to their doctors and generally are more approachable than their doctors.²⁵ In a previous study of
5 lay consumers' perception of clinical quality measures, the relationship with the pharmacist was
6 an important factor favored over the use of clinical quality measures in choosing a pharmacy.⁸
7
8 Francic et al., 2005 also showed that service-related features determined the pharmacy that
9 patients chose to fill their prescriptions. Their study results highlighted the value of the pharmacy
10 staff and pharmacists in patients' pharmacy decision-making process.⁴¹ Using the CEPSS,
11 pharmacies can highlight their communication skills in providing medication information,
12 including their friendliness and caring attitudes.
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25 Based on the questionnaire results, a pharmacy's low rating in health/medication focused
26 communication was extremely likely to cause a switch in pharmacy. Whitehead and colleagues
27 observed that patients who utilized pharmacies with insufficient provision of medication
28 information wanted a pharmacy with better information about medicines. These individuals were
29 also likely to use this factor to choose their pharmacies.⁴⁰ If the amount of medication
30 information that is provided to patients is likely to influence their pharmacy choice, then it is
31 important for pharmacies to publicize their CEPSS results as a way of increasing their patronage
32 by other patients. The questionnaire results showed pharmacy staff communication was
33 perceived as extremely important in evaluating pharmacies, yet a lower proportion of subjects
34 considered it extremely likely that this domain would prompt them to change pharmacies. We
35 hypothesize that while patient-provider communication is important in enhancing patient's
36 satisfaction with pharmacy services, patients may place a higher value in the safe administration
37 of their medicines (reflected in their responses to the importance of health and medication-
38 focused communication, clarity of written Information, and pharmacy care) because it may be
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3 linked directly to improved health and medication use outcomes, and a reduction in medication
4 errors.
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8 Older adults reported that the credibility of the quality information was an important
9 consideration in the use of CEPSS as a quality metric for pharmacies. These results are similar to
10 a previous study of clinical pharmacy quality measures among patients with chronic illnesses.¹¹
11 In addition, Hibbard's proposed consumer choice model has reported a lack of trust in quality
12 information as a barrier to the use of such information in patients' decision making.^{2,24} To
13 enhance the use of CEPSS in patients' pharmacy choice, a credible source needs to be used in the
14 communication of this quality information.
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24 The older adults in this study thought that the Internet, the doctor's office, AARP
25 magazines, and mass media communications were portals that could be used in disseminating
26 pharmacy quality information. According to the consumer choice model, patients need to be
27 aware of the availability of quality information before it can be used in their decision making.²⁴
28 Hence, the information on these possible dissemination avenues is vital to the publicizing of
29 pharmacy quality information and the use of CEPSS by older adults.
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39 This study had some limitations. A convenience sampling approach was used in the
40 recruitment of older adults. Our sample was predominantly female and well-educated.
41 Participants' health literacy was not addressed and will need to be examined in the future. Inter-
42 rater reliability between the two authors who coded the data was determined by consensus and
43 not by statistical analysis. The discussion of the CEPSS domains during the focus group might
44 have impacted the questionnaire results. The CEPSS was developed and validated in 2007.
45 Hence, the pharmacy services represented in the survey may not adequately represent changes in
46 types of services increasingly offered in ambulatory pharmacy including
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3 preventative health screening, immunization, and medication therapy management services, etc.

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5 The survey may need to be re-validated prior to distribution. Also, we did not explore the
6
7
8 question of how CEPSS data might be collected and who would pay for it.
9

10 **CONCLUSION**

11
12 The Consumer Experience with Pharmacy Services Survey (CEPSS) may be important
13
14 and influential as a quality metric in older adults' pharmacy choice. The older adults in this study
15
16 would utilize information related to the pharmacist's communication about health and medicines
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18 in their decision to switch pharmacies. Pharmacies should consider using and publicly reporting
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20 CEPSS information as a means of publicizing the quality of care provided to consumers.
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Table 1: The Consumer Experience with Pharmacy Services Survey (CEPSS) ^a Quality Domains

Quality Domain	Definition ^b
Pharmacy Staff Communication	Pharmacy staff listens carefully, treats you with respect and courtesy, spends time talking to you, shows concern for you, explains things in a way that is easy to understand, talks to you about your health.
Pharmacy Care	Pharmacist talks to you about how your medicine is supposed to help you, advises you on how to treat a new health problem, talks to you about whether it is safe to take a new prescription medicine along with your regular prescription medicine.
Health and Medication-focused Communication	Pharmacy staff asks if you have problems with your medicine; You can talk to staff about your medicine as often and as soon as you want; When you have a new prescription filled, the staff tells you how often and when to take your medicine, what to avoid when taking your medicine, and what to do when you have bad reactions.
Clarity of Written Information about Medicines	The instruction on your medicine label is easy to read and easy to understand; The pharmacy staff gives you written information about the medicine; The information on the medicine is written in a way that is easy to read and easy to understand.

- a. The Pharmacy Quality Alliance developed a standardized survey that can be used to examine patient assessments of the quality of services they receive during ambulatory care pharmacy encounters. The survey is modeled after similar surveys of physicians and health plans and assesses patient experiences with the key elements of care. The survey focuses on the information flow between pharmacists and patients from the patient's perspective.
- b. Definitions were provided to the focus group participants.

Table 2: Descriptive statistics of the study population (n=57) †

Variable	Number (%)	Mean ± SD ^a
<i>Socio-demographics</i>		
<i>Age</i>		73.94 ± 6.41
<i>Gender</i>		
Male	11 (19.3)	
Female	44 (77.2)	
<i>Ethnicity</i>		
Hispanic	4 (7.0)	
Not Hispanic	50 (87.7)	
<i>Racial background</i>		
White Caucasian	27 (47.4)	
Black or African American	20 (35.1)	
Asian	2 (3.5)	
Mixed Race	5 (8.8)	
<i>Years of school completed</i>		
8 grades or less	0	
Some high school	4 (7.0)	
High school graduate or GED^b	9 (15.8)	
Some College	16 (28.1)	
College graduate	8 (14.0)	
Graduate degree	17 (29.8)	
<i>Health Insurance plan in the past six months</i>		
An individual plan	2 (3.5)	
A plan through your employer	2 (3.5)	
Military or VA^c Health Plan	1 (1.8)	
Medicaid	6 (10.5)	
Medicare	12 (21.1)	
More than one type of health insurance	32 (56.1)	
I have not had an insurance plan in the past 6 months.	2 (3.5)	
<i>Clinical characteristics</i>		
<i>Self-rated health</i>		
Excellent	3 (5.3)	
Very good	18 (31.6)	
Good	25 (43.9)	
Fair	10 (17.5)	
Poor	0	
<i>Number of prescription medications taken daily</i>		
1	6 (10.71)	5.55 ± 3.40
≥ 2	50 (89.3)	
<i>Number of pharmacies used in the past six months</i>		
1	40 (71.43)	1.26 ± 0.52
≥ 2	14 (25.0)	

<i>Pharmacy Type</i>	
Chain	42 (73.7)
Independent	10 (17.5)
Mail order	1 (1.8)
Internet	2 (3.5)

† 3 individuals' survey data was incomplete or missing.

- a. SD= Standard deviation units
- b. GED= General Educational Development for Certificate of High School Equivalency
- c. VA= Department of Veteran Affairs

Table 3: Older Adults' Perception of Evaluating and Comparing Pharmacies based on the CEPSS

Perceptions	Sample Quotations
Older adults supported the idea of evaluating pharmacies based on the domains.	<p>“I think it’s important...to us, the consumer. We need this. We need pharmacies to give us this.”</p> <p>“I think they should be evaluated.”</p>
Several older adults pointed out that many services are compared in today’s marketplace so pharmacy quality should be compared too.	<p>“I think it’s a great idea, and you know, of comparisons, we do it. As consumers, we should have a right to make comparisons...We go to supermarkets, we make comparisons. .. And the same thing with pharmacists— service, oral communication, written communications, pharmacy care, we make a comparison. And what it does is, is when people grade these pharmacies ... that'll bring them up. I think it's a great idea.”</p> <p>“Just like they do for our health insurance companies—the pharmacies need to be held to that same standard.”</p> <p>“They rate the hospitals and they rate the doctors, who’s good and who’s bad, so [why not pharmacies?]”</p>
The evaluation and comparison of pharmacies would have a salutary effect on pharmacies that initially rank low.	“I think an evaluation would be a good thing. That way, they know where they would need to improve and to just get an idea of what the public, their customers, you know, the relationship, and just to make things better. It’ll give them an idea of, This is what the public is looking at, from us.”
The evaluation and comparison of pharmacies would be more valuable in urban than in rural locations.	“We have so many different pharmacies in Madison, we’re spoiled. We’re not talking about some little rural community. ... It’s a whole different problem...[when] the next pharmacy is fifty miles away. This [reporting of domains] means nothing.”
The evaluation of pharmacies should focus on specific, quantifiable indicators of quality (e.g. medication safety) and avoid subjective data.	“Well, you know, hospitals are rated and you can read the ratings on the number of people who get infections while in the hospital... the number of people who die in the hospital and that type of thing...because the hospitals are required to provide that information. So what would have to happen is that all of the pharmacies would have to be required to provide certain facts on their outcome of how many people were given the wrong medication, which as far as I'm concerned that's the only important thing they have to rate is how many people are given the wrong medication...Service?...Well,that's subjective.. How long you have to wait. How attentive they are to you...That, again, that doesn't kill you.”
Some older adults would rather use price and pharmacy medication safety in evaluating pharmacies	“As long as they can give me the right medication I don't give a hoot. I go where the price is right and I don't care actually if they have the best price if the pharmacist frowns at me every time....I don't care if they say hurry up and get out of here. I don't care as

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than quality information.	long as their price is right... as long as they are competent... no errors. None of these [CEPSS domains] are related to the pharmacy giving you the wrong darn pill.”
Some older adults are skeptical about the evaluation of pharmacies based on the domains because it is subjective information based on individual preferences.	“I think it's difficult because it's very personal, and it depends... some people like or want more information, others don't want as much. I don't want to spend 10 minutes talking every time... -- about the drug, which our pharmacist is obligated to do, and it's obvious that he's obligated to come over and say, ‘Do you have any questions?’... to me that's good, but somebody else might want more information. -- so I think it'd be difficult to come up with an objective system that takes in individual choices.”

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Table 4: Older Adults' Perceived Importance of the Consumer Experience with Pharmacy Services Survey (CEPSS)

Objective	Perceptions	Sample Quotations
Importance of the CEPSS	The CEPSS may help in avoiding worst providers and choosing the best pharmacies.	"It rules out the worst case scenarios for you. If you've got eight to pick from, I would go with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that way at least you can narrow the field down."
	The quality domains may confirm older adults' experience with their pharmacy.	"It might change my perceptions of where I'm going...or it might confirm that I am where I want to be, however they are rated on these various things."
Perceived importance of specific CEPSS domains	<i>Health and Medication-focused Communication (HMC)</i> is the most important quality domain that would prompt older adults to switch pharmacies.	<p>"I like information...and if you can't talk to me, especially about the interaction between medications, then I have no reason to go to that pharmacy."</p> <p>"The reason I go to the pharmacy is to get medicine, and if I go to get my medicine, I want the communication to be perfect... I want them to tell me how long and when I should take it. I want all the information about my medication before I take it. So, I said [HMC], because it's the real reason I'm in there. I came to you for medication, I want everything explained to me."</p> <p>"I'm already sick and what I put in my body- It's so important that it can change or alter me in a negative way. So, I agree with the young lady right here, because she's right you know, I'm sick. I can't get any sicker. So, I want to heal. So the health and medication-focused communication. I want to know what I'm taking. What it does to me, the side effects, how it's going to help me, whether side effects or no side effects, how long I have to take it, the longevity. Do I have to take it the rest of my life? Do I have to take it for a short period of time? And as long as it's communicated to me, I'm good to go."</p>

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Health and Medication-focused Communication is important compared to other CEPSS domains.

“...the medication related communication. That's what you're going to the drug store for. The rest of the stuff you can put up with or find someplace else, as in written communication.”

“Yeah, that for me is just essential. If I can't get my medication related questions addressed and answered by the pharmacist, the rest of that stuff doesn't even rise to the top. I can deal with a staff who doesn't communicate well I can, you know, the rest of that, I still am at a point where I can deal with. But, if I'm not getting that communication about what's being sold to me for my health, I'm out of there.”

Pharmacy staff Communication (PSC) is the most important quality domain that would prompt older adults to switch pharmacies.

“If you treat me with disrespect, I don't think I'm going to be a very good customer. Like I said before, I'm spending my money... I am not used to spending my money when I have to be treated like a dog!”

“It helps if the staff would greet people with a smile and courtesy at all times.... If you're having a bad day and you work with this pharmacy, you really got a portion of my life in your hands. You're filling my prescription here. So don't be angry while you're filling my meds, you may throw the wrong thing in there... it just helps to be courteous. If I'm a confused old lady and I don't understand this medicine and I'm confusing you, please call your manager and have her explain to me. Just treat that person with respect first.”

“... I left my old pharmacies for the same reason as number 2 [PSC]...I would really like to feel comfortable while I'm at a place and I'd like to know that the people know who I am and what I'm there for. Getting lost in the shuffle, I ain't down with that. If you can't talk to me and call me by name or a number or something, there's definitely going to be change”

Pharmacy Staff communication is important compared to other CEPSS

“...I don't count on the pharmacist as the expert about my health. And, if I have a medication-related communication, I might ask the pharmacist but I'm more likely to look it up online or go through My

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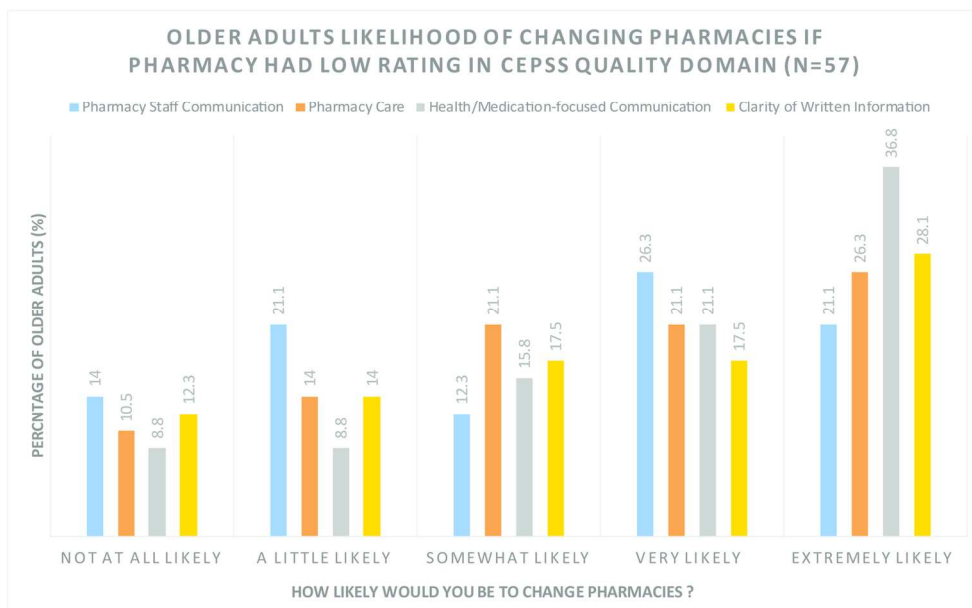
domains.	Chart with my general practitioner. But, being treated with respect by the pharmacy staff is very important.”
<i>Clarity of Written Information (CWI)</i> is the most important quality domain that would prompt older adults to switch pharmacies.	<p>“I would want to make sure that...they have my prescriptions correctly labeled and written and also that, when they give me information on how to take that prescription and how it would react with other medicines, you want that to be correct... it gives me an understanding about my medication ... you know, what shape and color the pill is...”</p> <p>“I would change just for that reason [CWI], yes, because that's important to me. My medication is why I'm there in the first place. I want the correct information about it. So, yes that would make me change, if they didn't have that straight.”</p>
<i>Pharmacy Care</i> is the most important quality domain that would prompt older adults to switch pharmacies	“The pharmacy care is very important for me, because with the interaction [with the pharmacist] you can do other things that are related to my condition and then the concern of the staff for my condition; I think that pharmacy care is the most important for me.”
<i>Pharmacy Care</i> is important compared to other CEPSS Domains	“...that's [pharmacy care] going to cover everything, the care from my pharmacist, my interaction with my pharmacist, everything with the pharmacist is going to cover my medication, communication, ... - if that was not up to par, if that was really poor-quality low, then that would cause me to go elsewhere.”

Table 5: Older Adults' Perceptions of the Influence of the Consumer Experience with Pharmacy Services Survey (CEPSS) in choosing/switching pharmacies

Objective	Perceptions	Sample Quotations
Perceived influence of the CEPSS in choosing pharmacies	Some older adults will use the CEPSS, in addition to other factors, to choose pharmacies.	"I think these [CEPSS domains] are important factors, but, there are other factors that I would look at in choosing a pharmacy like having complaints about inaccuracy, storing prescriptions, their billing, location, local variety of other items available in the store. So, this is only one group of factors I'd take in choosing a pharmacy. And there are the other factors that'd be equally or more important."
	Older adults think using the CEPSS to choose pharmacies will outweigh the use of convenience.	"... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then somebody recommended someplace else but it was inconvenient. But it turned out... it was worth the inconvenience, because the staff there was really concerned and I wasn't afraid to ask them questions."
Perceived influence of the CEPSS in switching pharmacies if current pharmacy had low ratings in domains	Some older adults would discount or ignore the low ratings of their pharmacy, placing more stock in their own experiences of their pharmacies.	"I would ignore -- I'm very happy with my pharmacist and my pharmacy. And it wouldn't make any difference what the report said. I mean, I've been to different pharmacists in the past and where I'm at now they know me by name, they talk -- I mean it's just a very friendly relationship, and if I saw that they had a poor rating, I would really question the people that did the study."
		"I agree with 1001, I've been using this pharmacy for a number of years, it meets all these criteria, I would give it, you know, high marks on all this criteria, so I don't think I would change my use of that pharmacy."
	Personal experience with a pharmacy may override the switch of pharmacies based on the CEPSS.	"I probably wouldn't use [the CEPSS] because I'm happy with mine and I'd say they'd cut another tree down to write a report on stuff that is pretty obvious because you either go in there and you're happy or you're not happy and you go someplace else.... experience means more than the report."
	Some older adults would	"It might be down the road a little further, but I'd be looking for another

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change their pharmacies if they found their pharmacy rated low in the domains.	pharmacy.” “Get your running shoes!”
A switch in pharmacy will only occur if there is a negative personal experience.	“I don't think I would change my pharmacy unless I had a bad experience at the one I went to....a personal experience.”
A switch in pharmacy will occur because the CEPSS is based on other consumers' experiences.	“I know the best information comes from my peers, the other people that are using the pharmacy....If there was a report that I knew that my peers contributed to that information and it said the pharmacy that I'm using right now is like, at the bottom of the list, I'd just leave... I'd be trying to get to the one that is at the top of the list, because I want to be treated fairly, I want to be acknowledged when I come up in there, ... Some pharmacies have issues with having staff that are not as knowledgeable as others. And we don't know that. We just go there and get our prescriptions, but if I see a report that says, ‘Out of 100 people, everybody says (Pharmacy name) on that corner is the best because they felt well treated...., in communication they had time, the pharmacies were listening to them.’ ... I would definitely I'd be out of there.”
Some older adults would want to know why their pharmacy rated low	“I'm going to the manager of that pharmacy and saying, ‘Look, this is where you've reached, can we do something about this?’ And see what the reaction is. If it's, ‘Oh, we'll try to do better,’ I might stay, but if they don't come up to my satisfaction or to the number one, then I leave.”

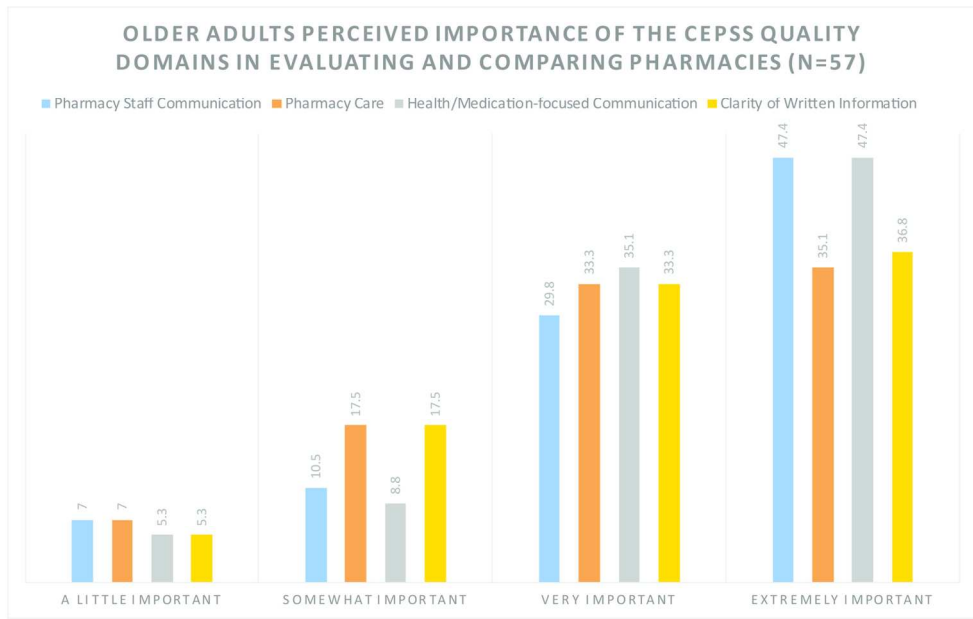


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COREQ (CONsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
<i>Personal characteristics</i>			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
<i>Relationship with participants</i>			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
<i>Setting</i>			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the interview or focus group?	
Duration	21	What was the duration of the interviews or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
<i>Data analysis</i>			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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Using the Consumer Experience with Pharmacy Services Survey as a Quality Metric for Ambulatory Care Pharmacies: Older Adults' Perspectives

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Primary Subject Heading:	Health services research
Secondary Subject Heading:	Health policy, Patient-centred medicine
Keywords:	Older adults, Pharmacy, Quality in healthcare, Quality measures, Patient experience survey

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3 **Using the Consumer Experience with Pharmacy Services Survey as a Quality Metric for**
4 **Ambulatory Care Pharmacies: Older Adults' Perspectives**
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Abstract

Objectives: To describe older adults' perceptions of evaluating and comparing pharmacies based on the Consumer Experience with Pharmacy Services Survey (CEPSS), describe older adults' perceived importance of the CEPSS and its specific domains, and explore older adults' perceptions of the influence of specific CEPSS domains in choosing/switching pharmacies.

Design: Focus group methodology was combined with the administration of a questionnaire. The focus groups explored participants' perceived importance of the CEPSS and their perception of using the CEPSS to choose and/or switch pharmacies. Then, using the questionnaire, participants rated their perceived importance of each CEPSS domain in evaluating a pharmacy, and the likelihood of using CEPSS to switch pharmacies if their current pharmacy had low ratings. Descriptive and thematic analysis were done.

Setting: Six semi-structured focus groups were conducted in a private meeting room in a Mid-Western state in the USA.

Participants: Sixty English-speaking adults who were at least 65 years, and had filled a prescription at a retail pharmacy within 90 days.

Results: During the focus groups, the older adults perceived the CEPSS to have advantages and disadvantages in evaluating and comparing pharmacies. Older adults thought the CEPSS was important in choosing the best pharmacies and avoiding the worst pharmacies. The perceived influence of the CEPSS in switching pharmacies varied depending on the older adult's personal experience or trust of other consumers' experience. Questionnaire results showed that participants perceived health/medication-focused communication as very important or extremely important (n=47, 82.5%) in evaluating pharmacies and would be extremely likely (n=21, 36.8%) to switch pharmacies if their pharmacy had low ratings in this domain.

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3 Conclusions: The older adults in this study are interested in using patient experiences as a quality
4 metric for avoiding the worst pharmacies. Pharmacists' communication about health and
5 medicines is perceived important and likely to influence older adults' pharmacy selection.
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Article Summary

Strengths and limitations of this study

- For the first time, research examines older adults' perceptions of pharmacy patient experience measures, which is important as pharmacy quality organizations aim to include patient experiences as part of a pharmacy's quality metrics.
- This is the only study to examine whether older adults perceive patient experience measures (that may be publicized in pharmacy quality reports) as important or useful in their healthcare provider selection.
- This study is significant in improving the quality of care provided by pharmacy providers as the pharmacy profession moves towards the development of quality ratings that can be understood and used by patients to inform their pharmacy selection.
- Limited geographical area.
- Convenience sample.

BACKGROUND

Public reporting of quality-of-care information has been suggested as a means for patients to actively choose best performing providers that deliver quality and efficient care.¹ With access to provider performance data, it is assumed that patients are aware of the differences in quality-of-care and can make an informed decision based on this information.² It is expected that when patients become selective of their healthcare providers based on publicly available performance information, providers will be forced to improve quality-of-care so that they can maintain their reputation and stay competitive.³

Although work has been done to encourage patients to utilize provider performance information to choose their healthcare providers, it is disconcerting to know that available public reports are not commonly used by patients, and the public reports do not have a substantial effect on patients' decision making.^{2,4} This is due to a myriad of factors, including a lack of awareness of available provider performance information and low perceived usefulness of the information.^{3,5-7} In addition, it is reported that patients do not have an interest in using provider performance information because the information presented is irrelevant and contains provider performance measures that are not understandable.^{8,9}

As it relates to pharmacy choice, our previous studies showed that patients do not understand the meaning and interpretation of pharmacy performance measures and few individuals are likely to use them to make an informed pharmacy choice.^{8,10,11} It has been suggested that one way to get patients to use quality information in guiding their provider choice is to consider the features of quality that patients care about and that patients believe are relevant to their choice.^{12,13}

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Patient care experience measures are increasingly used in public reporting to highlight the patient's perspective of their care.¹⁴ Standardized patient surveys such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey is a mechanism through which the information and experiences that patients gain while utilizing health services can be captured and summarized.¹⁵ Although data describing patients' health care experiences might be used by consumers to choose better performing providers (e.g., hospitals) as well as hold them accountable¹⁶, no one facilitated the development of patient care experience surveys for the care provided in ambulatory (outpatient) pharmacies until recently. A standardized survey, the Consumer Experience with Pharmacy Services Survey (CEPSS), has been developed for patients' evaluation of pharmacy services received in an ambulatory care setting.^{15,17}

The CEPSS was developed as a mechanism for benchmarking the quality of pharmacy services provided by pharmacists nationwide. Most patients utilize a pharmacy for ambulatory care services such as filling a prescription medication, obtaining medication information about an over-counter drug, or getting advice about disease self-management.¹⁵ With the CEPSS, the information relevant to pharmacy quality based on patients' interactions with pharmacists can be captured from survey responses. Based on the CAHPS initiative, the CEPSS is a reliable and valid survey to capture patient perceptions of pharmacy quality. There are four measures of pharmacy quality within the CEPSS: Pharmacy Staff Communication, Health- and Medication-Focused Communication, Pharmacy Care, and Clarity of Written Information about Medicines (Table 1). Similar to the CAHPS survey, the rationale for the CEPSS is that it can be used by healthcare organizations, insurers, and patients as a quality metric in evaluating and comparing a pharmacy's performance and ultimately motivate patients to choose high quality pharmacies.^{15,17}

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Previous studies have reported mixed results related to the usefulness of the CAHPS survey in patients' evaluations of hospitals and health plans^{1,2,18-20 21,22}, and the importance of the CAHPS measures in patient decision making.^{1,23,24} Since the development of the CEPSS, no research has examined whether patient experience information might be useful to patients' evaluations of pharmacies and if the CEPSS is important in patients' decision making concerning their pharmacy. Also, we do not know if patients' perceptions of the usefulness of the CEPSS are similar to reported usefulness of the CAHPS survey. In our previous study, patients with chronic illnesses who discussed the usefulness of clinical pharmacy quality measures also wanted to see consumer experience quality metrics.¹¹ It is assumed that the CEPSS will be important to pharmacy consumers for several reasons. For example, a pharmacist may ensure the accuracy of a prescription medication, check the appropriate labeling of a prescription medication, and ensure the safe administration of the medicine by checking for drug interaction. Based on clinical quality metrics, this pharmacy may be ranked as "high technical quality." However, the pharmacist may not give the patient the amount of time and attention needed, answer their questions appropriately, or offer private counseling spaces during the discussion of sensitive health issues. These aspects of pharmacy quality can only be evaluated based on patient input and experience.¹⁵ Hence, the CEPSS can be important as a quality metric in facilitating patients' pharmacy choice.

This study focuses on older adults' perceptions of using the CEPSS to evaluate and compare pharmacies, their perceived importance of the survey, and the perceived influence of the survey in their pharmacy selection. The research is significant to older adults because they use a lot of medicines, are more likely to have a chronic condition and are at risk for preventable adverse drug events.²⁵ Because of these reasons, they are more likely to talk to the pharmacist

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3 about their prescription medicines and utilize pharmacies for medication reviews, disease
4 management, and other pharmacy services.²⁶ Exploring older adults' perceptions of the CEPSS
5 will allow this information to be utilized in the development of public reports that will help them
6 identify better performing pharmacies.
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12 According to Hibbard et al. 2002's theoretical consumer choice model²⁴, a psychological
13 process takes place in a patient's mind before they proceed with a behavior (i.e., provider
14 decision making using quality information). Specifically, the model proposes that patients need
15 to be aware of the availability of quality information, trust the information, and perceive the
16 information as useful to them (the psychological processes) before it can be used in their
17 decision making (the behavior).^{2,5,24} This study explores, in part, these psychological processes
18 among older adults who could potentially use pharmacy quality information.
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29 **OBJECTIVES**

30 The objectives of the study are to 1: Describe older adults' perceptions of evaluating and
31 comparing pharmacies based on the CEPSS, 2: Describe older adults' perceived importance of
32 the CEPSS and its specific domains, and 3: Explore older adults' perceptions of the influence of
33 specific CEPSS domains in choosing/switching pharmacies.
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40 **METHODS**

41 **Sample**

42 The convenience sample for this study consisted of English-speaking individuals who had filled
43 a prescription at a retail pharmacy within 90 days of recruitment and who were at least 65 years
44 of age. The authors partnered with staff at senior apartment facilities and community centers to
45 recruit participants by means of email announcements, word of mouth, and flyers. Participants
46 were informed of the study's eligibility criteria, objectives, and compensation for participating
47 (\$50 cash). Recruiters enlisted the participation of both men and women who had the capacity
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3 and ability to provide consent. The Education and Social/Behavioral Science Institutional
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5 Review Board of the University of Wisconsin-Madison approved the recruitment design and the
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7 overall study. Based on the number of participants who responded to the recruitment efforts, 60
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9 people were recruited to six focus groups. There were no drop-outs or refusals to participate.
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12 **Study Design and Data Collection**

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15 Using a phenomenology approach, focus groups were chosen as the data collection method
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17 because the ways in which older adults think about and might use pharmacy patient experience
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19 measures are insufficiently understood. Focus groups allowed for gathering and exploring a wide
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21 range of perspectives on pharmacy quality. A semi-structured questioning route was developed
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23 by the authors and used at all six groups. The focus group guide was not pilot-tested prior to the
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25 study commencement. The participants were informed of the reasons for conducting the research
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27 and the reason for the investigators' interest in the research topic. One of the authors (KC), a
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29 trained male focus group moderator and a PhD-trained cultural anthropologist, who has 20+
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31 years of experience conducting qualitative research, facilitated the groups. All groups were
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33 attended by the study's principal investigator (OS). Field notes were taken by OS during the
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35 focus groups and discussed with the moderator. Senior apartment facilities and community
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37 centers in Madison, Wisconsin, served as venues for the groups. The groups took place from
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39 May–July 2014 and lasted approximately 90 minutes each. Participants were not given any
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41 information about CEPSS before completing the focus groups.
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48 To explore the triangulation of results, a brief 10-minute, 12-item questionnaire was self-
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50 administered at the end of the focus groups. The questionnaire asked participants to rate the
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52 importance of each specific CEPSS domain in evaluating pharmacies (on a five point Likert
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54 scale, response options were “Not at all important” to “Extremely important.” Also, on a five-
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3 point Likert scale, participants indicated their likelihood of changing pharmacies if a pharmacy
4 rated low in a specific domain (response options were “Not at all likely” to “Extremely likely”).
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8 Participants’ demographic information was also collected.
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10 **Analysis**

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12 The analysis in this article focuses on the following questions, which are a subset of questions
13 administered at the focus groups:
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- 15 • I will ask you to imagine that you had access to a report that compares pharmacies based
16 on all the aspects of pharmacy quality that we have been talking about (The following
17 measures of pharmacy quality, including their definitions, which had been discussed
18 individually, were displayed on a flipchart to facilitate participant discussion of the
19 present question: Health and medication-related communication, Pharmacy staff
20 communication, Pharmacy care, Clarity of written information provided with
21 medications). (See table 1 for descriptions). Imagine that the report would tell you which
22 pharmacies do better and which do worse on these aspects of pharmacy quality. What
23 would you think about pharmacies being evaluated and compared on these aspects?
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25 • What would you do if you read such a report and saw low quality ratings for your
26 pharmacy?
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28 • Which aspect of pharmacy quality, if you found it rated low in a report, would prompt
29 you to change your pharmacy? What is important to you about this factor?
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31 • What are your thoughts on how to distribute a report on pharmacy quality to pharmacy
32 customers?
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53 The focus groups were audio recorded, transcribed verbatim by a certified transcriptionist, and
54 independently coded by two of the authors (OS and KC). NVivo® version 10 (QSR
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3 International, Burlington, MA) was used to organize the data and to categorize the themes. Data
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5 saturation was discussed by OS and KC. Transcripts were not returned to participants for
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7 comments or corrections. The authors used descriptive coding, which is a method of coding
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9 qualitative data whereby words or short phrases are assigned to segments of text to capture their
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11 essential ideas, and to enable comparison of similar ideas across the entire qualitative data set (in
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13 our case, across all transcripts).²⁷ The authors coded all transcripts independently and discussed
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15 coding divergences. They reached agreement on the application of all codes. All themes were
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17 derived from the data and were not identified in advance. The participants did not provide
18
19 feedback on the findings.

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21 Descriptive statistics were used to examine participant responses to the questionnaire including
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23 questions on perceived importance of each CEPSS quality domain, and participants' likelihood
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25 of changing pharmacies if their pharmacy rated low in a specific CEPSS domain. The
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27 questionnaire responses were analyzed using SPSS V. 21.0.

33 34 **RESULTS**

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36 There were 60 older adults in this study. Participants' ages ranged from 65 to 88 years
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38 old. At least 8 participants with a maximum number of 12 participants were included in each
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40 focus group. The composition of each focus group is published elsewhere.¹³ The highest
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42 proportion of older adults were female, white, had a graduate degree and self-reported having
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44 good health. (Table 2). Based on the study objectives, four major themes emerged from the focus
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46 group.

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48 First, older adults' perceived the CEPSS to have certain advantages and disadvantages in
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50 evaluating and comparing pharmacies. Second, older adults thought the CEPSS was important in
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52 choosing the best pharmacies and avoiding the worst pharmacies. Third, older adults perceived
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3 the CEPSS would be influential in their decision to choose a pharmacy. Fourth, older adults'
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5 perception of the CEPSS influence in switching pharmacies varies depending on the individual's
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7 personal experience or trust of other consumers' experience. Additional themes are also
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9 described.
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12 The study's overall findings are grouped based on the objectives of the study.

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14 **Objective 1:** The objective was to describe older adults' perceptions of evaluating and
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16 comparing pharmacies based on the CEPSS.
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19 Major theme 1: Older adults perceived the CEPSS to have certain advantages and
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21 disadvantages in evaluating and comparing pharmacies. Some older adults supported the use of
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23 CEPSS to evaluate and compare pharmacies because many health services are compared in the
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25 market place and the evaluation would have a salutary effect on pharmacies that were initially
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27 rated as low quality (Table 3)
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32 *"I think it's very useful. They rate hospitals nationwide. You can go and look up how your*
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34 *hospital rates. I think you should be able to do that for your pharmacy."*

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37 *"Everybody would get better or do the job better knowing somebody is watching over them.*
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39 *I think they would do a better job if they know somebody out there is watching over them*
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41 *and grading them."*
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44 On the other hand, some older adults were not supportive of using the quality domains to
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46 evaluate pharmacies because it was not based on quantifiable clinical indicators of quality but
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48 based on subjective information.
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51 *"If you're real unhappy cause you have to wait [in line], go to a different pharmacy! But*
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53 *the only important thing to get out of a pharmacy is the proper medication and the cost and*
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55 *those are the only two things that are life and death, just as in a hospital. The service you*
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get, whether you're going to get an infection, whether you're going to get a pharmacist who has a poor record...those are the important things, whether they make errors and whether their cost is prohibitive.”

Additional minor themes were identified:

Credibility of the quality information was an important consideration in the use of CEPSS as a quality metric for pharmacies. Older adults stated that their trust (credibility) of the quality information would depend on the information source, timeliness of the information, and whether the quality information was based on the CEPSS or other objective quantifiable data.

Verbatim statements included:

Credibility of the information

“Who's doing the judging...? Because you get all kinds of commercial interests involved, and public interests involved, and government interests involved.”

“If they're going to be rated, then we have to look at who's doing the rating. If it's the customer that would be one thing, if it's some outside source that knows what they're looking for but may not have a direct relationship, that's another thing.”

Timeliness of the information

“How are you going to have it be accurate by the time it would get in the hands [of patients], because any self-respecting pharmacist is going to try and fix whatever the problem is.”

CEPSS versus objective data

“Subjective information, that's a problem. However, there are certain factual things [that could be included in a quality report]. I had a pediatrician when my children were little...He said, 'I have called every pharmacy in [town name] with the ten prescriptions I

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3 *most often prescribe. And, they're cheaper here, they're more expensive there.'...The idea*
4 *that a doctor actually took the time to find out what his patients were having to pay for the*
5 *same medication from place to place, that was really a fine thing that he did. That's the kind*
6 *of research that's factual."*
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12 Older adults also suggested that a valid and transparent report on pharmacy quality would
13 need to say:
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17 *"Who's doing the evaluating, what are the actual criteria on which they're being*
18 *evaluated...It would help you determine whether this report is valid."*
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21 *"What's the standard [used for evaluating]? What does selection mean or what does*
22 *attention [to customers by pharmacy staff] mean?"*
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27 Other minor themes: Dissemination of a quality report containing CEPSS information was
28 important to older adults in using the survey domains.
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31 Older adults volunteered some thoughts on how often the quality report should be compiled,
32 including how to structure the report, and means and locations for wide dissemination including
33 the internet, pharmacies, doctors' offices, and American Association of Retired Persons (AARP)
34 magazines. Verbatim statements included:
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40 *Compilation of quality report*

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43 *"You would have to do this [report] fairly often [because lower-ranking pharmacies would*
44 *improve right away]."*
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48 *Structure of quality report*

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51 *"I think there's two different ways it could be done. You can rate the individual stores or you*
52 *could rate (Chain Pharmacy A) versus (Chain Pharmacy B), like the whole corporation and*
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I think it would have greater value rating the individual stores but that would be harder to do.”

Dissemination location for quality report

“If you can go by the internet and see—at the pharmacy that I go to, for example, I can enter in the webpage and see if they have a good evaluation.”

“I think a report should be included with your prescription. When you go there to pick it up, the pharmacist should say, ‘Here is a report’.”

“I would love to have my doctors know which pharmacies are really doing well so that when... I'm in the office [and]... they're going to prescribe a new medication, they could say, ‘We know that the following three pharmacies not only routinely stock this but are charging a reasonable price for it.’ Now, that doesn't say that's where you have to go. But, I'm not having to get to my pharmacy, which is a small one, and suddenly find out that we're going to have to wait a few hours for them to get it to me.”

“I think, since everybody here gets AARP, that would be a real good way, because everybody usually goes through the magazine here or the book that you get and knowing that they're behind this 100%, which they should be, since they are doing more representation of the older population.”

“One other way you could get it around is to have in newspapers and on TV that it is available and here is who you contact to get it. If you don't have a computer you can do that by mail and if you do you can request it on the Internet.”

Objective 2: The objective was to describe older adults’ perceived importance of the CEPSS and its specific domains.

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3 Major theme 2: Older adults thought the CEPSS was important in choosing the best
4 pharmacies and avoiding the worst pharmacies. (Table 4)
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8 *“It rules out the worst case scenarios for you. If you've got eight to pick from, I would go*
9 *with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that*
10 *way at least you can narrow the field down.”*
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14 While all the CEPSS domains were important, some older adults strongly supported
15 specific domains compared to others – i.e., health and medication-focused communication and
16 pharmacy staff communication were both perceived as the most important quality domains.
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18 These results are further confirmed in our questionnaire results.
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22 *“I think medication-related communication is the most important and as [participant name]*
23 *says it's the main purpose of the pharmacy... Anything else is extra.”*
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27 *“...I don't count on the pharmacist as the expert about my health. And, if I have a*
28 *medication-related communication, I might ask the pharmacist but I'm more likely to look it*
29 *up online or go through My Chart (a secure online service that allows a patient to*
30 *communicate with their healthcare provider) with my general practitioner. But, being*
31 *treated with respect by the pharmacy staff is very important.”*
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41 **Objective 3:** The objective was to explore older adults' perceptions of the influence of
42 specific CEPSS domains in choosing/switching pharmacies.
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45 Major theme 3: Older adults perceived the CEPSS would be influential in their decision
46 to choose a pharmacy. (Table 5)
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50 *“... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of*
51 *convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then*
52 *somebody recommended someplace else but it was inconvenient. But it turned out... it was*
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worth the inconvenience, because the staff there was really concerned and I wasn't afraid to ask them questions.”

However, some older adults would rather use price and pharmacy medication safety information to choose pharmacies instead of the CEPSS.

“As long as they can give me the right medication I don't give a hoot. I go where the price is right and I don't care actually if they have the best price if the pharmacist frowns at me every time....I don't care if they say hurry up and get out of here. I don't care as long as their price is right... as long as they are competent... no errors. None of these [CEPSS domains] are related to the pharmacy giving you the wrong darn pill.”

Major theme 4: Older adults' perception of the CEPSS influence in switching pharmacies varies depending on the individual's personal experience or trust of other consumers' experience. (Table 5).

Some older adults would switch pharmacies because CEPSS information is based on other consumers' experiences. Other older adults would place greater importance on their own personal pharmacy experiences than other consumers' experiences.

“I don't think I would change pharmacies if my own personal experience were good in all those areas... and others might've had a bad experience.”

When the older adults discussed what specific CEPSS domain would cause them to switch pharmacies if their pharmacy rated low, health and medication-focused communication and pharmacy staff communication were more frequently described as the quality domains that would cause them to switch their pharmacies.

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“I take 17 different prescriptions. And, if I couldn't depend on them (the pharmacy) to have accurate... information or the actual medication part of it, if I couldn't trust that, then, I guess, I would have to consider changing.”

“...you can ask about anything you want to if you have a good communication with staff. If you don't have a good communication with the staff, I feel like you're lost, absolutely lost. So... If I was missing that, I'd go someplace else.”

Questionnaire results- Importance of the specific CEPSS domains and its use in choosing/switching pharmacies

Fifty-seven participants completed a questionnaire. Three participants had missing data. Patients reported that all the CEPSS domains were extremely important in evaluating and comparing pharmacies. The largest percentage of older adults thought pharmacy staff communication (n=27, 47.4%) and health/medication focused communication (n=27, 47.4%) were extremely important in evaluating and comparing pharmacies. None of the older adults chose the “Not at all important” response option for any CEPSS domain. (Figure 1).

Overall, low ratings in all the CEPSS domains were likely to lead to a change in pharmacy. Twenty-one participants (36.8%) reported being extremely likely to change their pharmacy if it had low ratings in health/medication focused communication. The lowest percentage of older adults (n=12, 21.1%) would be extremely likely to change their pharmacy if their pharmacy reported low ratings in pharmacy staff communication (Figure 2).

DISCUSSION

This study showed that older adults perceive the CEPSS as important in evaluating and comparing pharmacies. Pharmacy quality information based on the CEPSS is likely to influence older adults' pharmacy selection in varied circumstances. The pharmacist's communication

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2
3 about medicines and health is perceived as the most important domain within the CEPSS. Low
4 ratings in this domain are also likely to influence older adults' pharmacy choice and to lead to a
5 possible switch in pharmacy.
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10 Older adults thought that the use of the CEPSS to evaluate and compare pharmacies had
11 certain advantages and disadvantages. This result is consistent with research showing how
12 patients use data from the CAHPS survey in evaluating health plans and hospitals.^{23,24} In the
13 current study, some older adults supported the CEPSS because many health services were
14 already compared in the market place and they perceived that an evaluation would have a
15 beneficial effect on initially low-rated pharmacies. Hibbard et al., 2003 showed that publicizing
16 hospital performance information led to higher quality among hospitals whose performance were
17 initially low.²⁸ Currently, there is no conclusive evidence of the effect of quality reports on
18 improved quality of healthcare services. Schaffler and Mordavsky, 2001 reported that the public
19 reporting of provider performance information did not affect patients' decision making, or lead
20 to provider competition and improved quality care.²⁹ This result might vary by the type of
21 healthcare service being received. For example, in a systematic review, it was concluded that
22 public reporting stimulates quality improvements in hospitals.¹⁸ However, in the same review, it
23 was reported that its effect in stimulating quality among health plans is mixed.¹⁸ Future research
24 needs to examine whether publicly available pharmacy quality information stimulates quality
25 improvement in ambulatory care pharmacies.
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48 Some older adults were not supportive of using the CEPSS to evaluate pharmacies
49 because the CEPSS is not based on quantifiable objective indicators of quality but rather on
50 subjective information compiled from patients. Patients have been reported neither to understand
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³⁰ nor to use objective quality metrics, in their healthcare decision making.^{9,31} Also, no

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3 comparative pharmacy information based on objective quality metrics are presently being
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5 publicly reported to patients. Objective quality metrics like the ‘High Risk Medication in the
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7 Elderly’ can be used by older adults to differentiate high quality pharmacies from low quality
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9 pharmacies. Efforts to disseminate this information to older adults as a mechanism for them to
10
11 choose quality providers when they are seeking care is needed urgently.
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15 Older adults will use the CEPSS to avoid the worst pharmacies. In a previous study,
16
17 patients stated that they were likely to use quality information to avoid poor quality providers,
18
19 rather than to seek out the best quality provider.^{11,32} This result has implications for older adults.
20
21 Older adults use a lot of medicines and possibly need pharmacists' help with medication
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23 management. It is important to educate older adults that they need to actively seek quality care.
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25 Quality information should not only be used when they are disappointed with their current
26
27 provider. The public reporting of pharmacies' CEPSS information will enhance older adults'
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29 active process of seeking high quality pharmacies. With access to quality information, patients
30
31 will be aware of the variation in the quality of pharmacies, they will increasingly become
32
33 selective of the pharmacy they visit to fill their prescriptions and get their care, and pharmacies
34
35 will make performance improvements to stay competitive.³
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42 In the selection of a pharmacy, older adults would likely use the CEPSS to finalize their
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44 decision making when choosing between several pharmacies. This is somewhat promising.
45
46 Previous research shows that the reputation of a healthcare provider,⁴ price,³³ and family/friends
47
48 referrals^{9,34} are factors patients use in choosing a healthcare provider. Also, location and
49
50 convenience have historically been important and used by patients in the initial selection of a
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52 pharmacy.^{35,36} However, this current study showed that when the choice of pharmacies has been
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54 narrowed down, quality information might be used in making the final decision.
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Though older adults think the CEPSS is important, some participants would still rely on their personal experience rather than the survey. Specifically, some older adults preferred to use their own experience in judging quality, rather than the experience of others. This was surprising since the CEPSS is based on other patients' personal experience and one would expect older adults to actively use this information to choose their pharmacies. On the other hand, it was encouraging to know that some older adults would rely on the evaluations of their peers in changing pharmacies. Past research shows that patients value other consumers' evaluation of their healthcare experience.³⁷ Patients like to use satisfaction measures in decision-making, especially if the responses are from people like themselves who are making similar choices.³⁸ This finding further shows the potential value of publicly reporting pharmacy quality information based on the CEPSS. Future research should consider the appropriate format and/or content of comparative pharmacy quality information.

Older adults perceive that they would need to have a personal negative experience before they would switch their pharmacy based on the CEPSS. Patients who viewed physician performance information reported the likelihood of changing physicians if he/she performed badly in a quality report.³⁹ Previous studies have showed that when patients are satisfied with the care they receive from their healthcare provider, they become loyal and less likely to switch.^{40,41} Usually, it takes having a number of bad experiences before consumers would feel dissatisfied and possibly switch their pharmacy.⁴⁰ If older adults wait to have a negative experience in their pharmacy before a decision to seek a higher quality pharmacy is made, a preventable negative medication adverse effect might occur and lead to serious consequences. Due to the multiple chronic conditions and high number of medicines used by older adults, they

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3 are more likely to need additional care from their pharmacist. Older adults are more prone to
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5 preventable adverse events and should therefore seek quality providers in their care.
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8 The focus groups and questionnaire results from this study showed that all domains
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10 within the CEPSS were considered important. However, based on participants' questionnaire
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12 ratings, there was variability in patient perceptions of the importance of each specific CEPSS
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14 domain. The questionnaire results confirmed that health/medication focused communication and
15
16 pharmacy staff communication were the most important specific CEPSS domain. These results
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18 are not surprising. Hassel et al., 1999 showed that patients use community (retail) pharmacies
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20 because they perceive the pharmacy staff to be experts on medicines, have time to talk compared
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22 to their doctors and generally are more approachable than their doctors.²⁶ In a previous study of
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24 lay consumers' perception of clinical quality measures, the relationship with the pharmacist was
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26 an important factor favored over the use of clinical quality measures in choosing a pharmacy.⁸
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28 Franic et al., 2008 also showed that service-related features determined the pharmacy that
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30 patients chose to fill their prescriptions. Their study results highlighted the value of the pharmacy
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32 staff and pharmacists in patients' pharmacy decision-making process.⁴² Using the CEPSS,
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34 pharmacies can highlight their communication skills in providing medication information,
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36 including their friendliness and caring attitudes.
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43 Based on the questionnaire results, a pharmacy's low rating in health/medication focused
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45 communication was extremely likely to cause a switch in pharmacy. Whitehead and colleagues
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47 observed that patients who utilized pharmacies with insufficient provision of medication
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49 information wanted a pharmacy with better information about medicines. These individuals were
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51 also likely to use this factor to choose their pharmacies.⁴¹ If the amount of medication
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53 information that is provided to patients is likely to influence their pharmacy choice, then it is
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3 important for pharmacies to publicize their CEPSS results as a way of increasing their patronage
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5 by other patients. The questionnaire results showed pharmacy staff communication was
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7 perceived as extremely important in evaluating pharmacies, yet a lower proportion of subjects
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9 considered it extremely likely that this domain would prompt them to change pharmacies. We
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11 hypothesize that while patient-provider communication is important in enhancing patient's
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13 satisfaction with pharmacy services, patients may place a higher value in the safe administration
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15 of their medicines (reflected in their responses to the importance of health and medication-
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17 focused communication, clarity of written information, and pharmacy care) because it may be
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19 linked directly to improved health and medication use outcomes, and a reduction in medication
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21 errors.
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27 Older adults reported that the credibility of the quality information was an important
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29 consideration in the use of CEPSS as a quality metric for pharmacies. These results are similar to
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31 a previous study of clinical pharmacy quality measures among patients with chronic illnesses.¹¹
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33 In addition, Hibbard's proposed consumer choice model has reported a lack of trust in quality
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35 information as a barrier to the use of such information in patients' decision making.^{2,24} To
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37 enhance the use of CEPSS in patients' pharmacy choice, a credible source needs to be used in the
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39 communication of this quality information.
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43 The older adults in this study thought that the Internet, the doctor's office, AARP
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45 magazines, and mass media communications were portals that could be used in disseminating
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47 pharmacy quality information. According to the consumer choice model, patients need to be
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49 aware of the availability of quality information before it can be used in their decision making.²⁴
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51 Hence, the information on these possible dissemination avenues is vital to the publicizing of
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53 pharmacy quality information and the use of CEPSS by older adults.
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3 This study had some limitations. A convenience sampling approach was used in the
4 recruitment of older adults. Our sample was predominantly female and well-educated.
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8 Participants' health literacy was not addressed and will need to be examined in the future. Inter-
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10 rater reliability between the two authors who coded the data was determined by consensus and
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12 not by statistical analysis. The discussion of the CEPSS domains during the focus group might
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14 have impacted the questionnaire results. The CEPSS was developed and validated in 2007.
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17 Hence, the pharmacy services represented in the survey may not adequately represent changes in
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19 types of services increasingly offered in ambulatory pharmacy including
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22 preventative health screening, immunization, and medication therapy management services, etc.
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25 The survey may need to be re-validated prior to distribution. Also, we did not explore the
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27 question of how CEPSS data might be collected and who would pay for it.
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29 **CONCLUSION**

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32 The Consumer Experience with Pharmacy Services Survey (CEPSS) may be important
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34 and influential as a quality metric in older adults' pharmacy choice. The older adults in this study
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36 would utilize information related to the pharmacist's communication about health and medicines
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38 in their decision to switch pharmacies. Pharmacies should consider using and publicly reporting
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40 CEPSS information as a means of publicizing the quality of care provided to consumers.
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22 **Patient consent:** Obtained.
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28 **Author's contribution:** OOS and DM designed the study. OOS and KC were involved in data
29 collection and data analysis. OOS and KC wrote the manuscript and DM critically revised the
30 content. All authors approved the final version of the manuscript.
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36 **Data sharing statement:** No additional data are available.
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For peer review only

Table 1: The Consumer Experience with Pharmacy Services Survey (CEPSS) ^a Quality Domains

Quality Domain	Definition ^b
Pharmacy Staff Communication	Pharmacy staff listens carefully, treats you with respect and courtesy, spends time talking to you, shows concern for you, explains things in a way that is easy to understand, talks to you about your health.
Pharmacy Care	Pharmacist talks to you about how your medicine is supposed to help you, advises you on how to treat a new health problem, talks to you about whether it is safe to take a new prescription medicine along with your regular prescription medicine.
Health and Medication-focused Communication	Pharmacy staff asks if you have problems with your medicine; You can talk to staff about your medicine as often and as soon as you want; When you have a new prescription filled, the staff tells you how often and when to take your medicine, what to avoid when taking your medicine, and what to do when you have bad reactions.
Clarity of Written Information about Medicines	The instruction on your medicine label is easy to read and easy to understand; The pharmacy staff gives you written information about the medicine; The information on the medicine is written in a way that is easy to read and easy to understand.

- a. The Pharmacy Quality Alliance developed a standardized survey that can be used to examine patient assessments of the quality of services they receive during ambulatory care pharmacy encounters. The survey is modeled after similar surveys of physicians and health plans and assesses patient experiences with the key elements of care. The survey focuses on the information flow between pharmacists and patients from the patient's perspective.
- b. Definitions were provided to the focus group participants.

Table 2: Descriptive statistics of the study population (n=57) †

Variable	Number (%)	Mean ± SD ^a
Socio-demographics		
<i>Age</i>		73.94 ± 6.41
<i>Gender</i>		
Male	11 (19.3)	
Female	44 (77.2)	
<i>Ethnicity</i>		
Hispanic	4 (7.0)	
Not Hispanic	50 (87.7)	
<i>Racial background</i>		
White Caucasian	27 (47.4)	
Black or African American	20 (35.1)	
Asian	2 (3.5)	
Mixed Race	5 (8.8)	
<i>Years of school completed</i>		
8 grades or less	0	
Some high school	4 (7.0)	
High school graduate or GED^b	9 (15.8)	
Some College	16 (28.1)	
College graduate	8 (14.0)	
Graduate degree	17 (29.8)	
<i>Health Insurance plan in the past six months</i>		
An individual plan	2 (3.5)	
A plan through your employer	2 (3.5)	
Military or VA^c Health Plan	1 (1.8)	
Medicaid	6 (10.5)	
Medicare	12 (21.1)	
More than one type of health insurance	32 (56.1)	
I have not had an insurance plan in the past 6 months.	2 (3.5)	
Clinical characteristics		
<i>Self-rated health</i>		
Excellent	3 (5.3)	
Very good	18 (31.6)	
Good	25 (43.9)	
Fair	10 (17.5)	
Poor	0	
<i>Number of prescription medications taken daily</i>		
1	6 (10.71)	5.55 ± 3.40
≥ 2	50 (89.3)	
<i>Number of pharmacies used in the past six months</i>		
1	40 (71.43)	1.26 ± 0.52
≥ 2	14 (25.0)	

<i>Pharmacy Type</i>	
Chain	42 (73.7)
Independent	10 (17.5)
Mail order	1 (1.8)
Internet	2 (3.5)

† 3 individuals' survey data was incomplete or missing.

- a. SD= Standard deviation units
- b. GED= General Educational Development for Certificate of High School Equivalency
- c. VA= Department of Veteran Affairs

Table 3: Older Adults' Perception of Evaluating and Comparing Pharmacies based on the CEPSS

Perceptions	Sample Quotations
Older adults supported the idea of evaluating pharmacies based on the domains.	<p>“I think it’s important...to us, the consumer. We need this. We need pharmacies to give us this.”</p> <p>“I think they should be evaluated.”</p>
Several older adults pointed out that many services are compared in today’s marketplace so pharmacy quality should be compared too.	<p>“I think it’s a great idea, and you know, of comparisons, we do it. As consumers, we should have a right to make comparisons...We go to supermarkets, we make comparisons. .. And the same thing with pharmacists— service, oral communication, written communications, pharmacy care, we make a comparison. And what it does is, is when people grade these pharmacies ... that'll bring them up. I think it's a great idea.”</p> <p>“Just like they do for our health insurance companies—the pharmacies need to be held to that same standard.”</p> <p>“They rate the hospitals and they rate the doctors, who’s good and who’s bad, so [why not pharmacies?]”</p>
The evaluation and comparison of pharmacies would have a salutary effect on pharmacies that initially rank low.	<p>“I think an evaluation would be a good thing. That way, they know where they would need to improve and to just get an idea of what the public, their customers, you know, the relationship, and just to make things better. It’ll give them an idea of, This is what the public is looking at, from us.”</p>
The evaluation and comparison of pharmacies would be more valuable in urban than in rural locations.	<p>“We have so many different pharmacies in Madison, we’re spoiled. We’re not talking about some little rural community. ... It’s a whole different problem...[when] the next pharmacy is fifty miles away. This [reporting of domains] means nothing.”</p>
The evaluation of pharmacies should focus on specific, quantifiable indicators of quality (e.g. medication safety) and avoid subjective data.	<p>“Well, you know, hospitals are rated and you can read the ratings on the number of people who get infections while in the hospital... the number of people who die in the hospital and that type of thing...because the hospitals are required to provide that information. So what would have to happen is that all of the pharmacies would have to be required to provide certain facts on their outcome of how many people were given the wrong medication, which as far as I'm concerned that's the only important thing they have to rate is how many people are given the wrong medication...Service?...Well,that's subjective.. How long you have to wait. How attentive they are to you...That, again, that doesn't kill you.”</p>
Some older adults would rather use price and pharmacy medication safety in evaluating pharmacies	<p>“As long as they can give me the right medication I don't give a hoot. I go where the price is right and I don't care actually if they have the best price if the pharmacist frowns at me every time....I don't care if they say hurry up and get out of here. I don't care as</p>

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than quality information.	long as their price is right... as long as they are competent... no errors. None of these [CEPSS domains] are related to the pharmacy giving you the wrong darn pill.”
Some older adults are skeptical about the evaluation of pharmacies based on the domains because it is subjective information based on individual preferences.	“I think it's difficult because it's very personal, and it depends... some people like or want more information, others don't want as much. I don't want to spend 10 minutes talking every time... -- about the drug, which our pharmacist is obligated to do, and it's obvious that he's obligated to come over and say, ‘Do you have any questions?’... to me that's good, but somebody else might want more information. -- so I think it'd be difficult to come up with an objective system that takes in individual choices.”

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Table 4: Older Adults' Perceived Importance of the Consumer Experience with Pharmacy Services Survey (CEPSS)

Objective	Perceptions	Sample Quotations
Importance of the CEPSS	The CEPSS may help in avoiding worst providers and choosing the best pharmacies.	“It rules out the worst case scenarios for you. If you've got eight to pick from, I would go with the top three... I wouldn't do the one that has poor, poor, poor, on the categories so that way at least you can narrow the field down.”
	The quality domains may confirm older adults' experience with their pharmacy.	“It might change my perceptions of where I'm going...or it might confirm that I am where I want to be, however they are rated on these various things.”
Perceived importance of specific CEPSS domains	<i>Health and Medication-focused Communication (HMC)</i> is the most important quality domain that would prompt older adults to switch pharmacies.	<p>“I like information...and if you can't talk to me, especially about the interaction between medications, then I have no reason to go to that pharmacy.”</p> <p>“The reason I go to the pharmacy is to get medicine, and if I go to get my medicine, I want the communication to be perfect... I want them to tell me how long and when I should take it. I want all the information about my medication before I take it. So, I said [HMC], because it's the real reason I'm in there. I came to you for medication, I want everything explained to me.”</p> <p>“I'm already sick and what I put in my body- It's so important that it can change or alter me in a negative way. So, I agree with the young lady right here, because she's right you know, I'm sick. I can't get any sicker. So, I want to heal. So the health and medication-focused communication. I want to know what I'm taking. What it does to me, the side effects, how it's going to help me, whether side effects or no side effects, how long I have to take it, the longevity. Do I have to take it the rest of my life? Do I have to take it for a short period of time? And as long as it's communicated to me, I'm good to go.”</p>

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Health and Medication-focused Communication is important compared to other CEPSS domains.

“...the medication related communication. That's what you're going to the drug store for. The rest of the stuff you can put up with or find someplace else, as in written communication.”

“Yeah, that for me is just essential. If I can't get my medication related questions addressed and answered by the pharmacist, the rest of that stuff doesn't even rise to the top. I can deal with a staff who doesn't communicate well I can, you know, the rest of that, I still am at a point where I can deal with. But, if I'm not getting that communication about what's being sold to me for my health, I'm out of there.”

Pharmacy staff Communication (PSC) is the most important quality domain that would prompt older adults to switch pharmacies.

“If you treat me with disrespect, I don't think I'm going to be a very good customer. Like I said before, I'm spending my money... I am not used to spending my money when I have to be treated like a dog!”

“It helps if the staff would greet people with a smile and courtesy at all times.... If you're having a bad day and you work with this pharmacy, you really got a portion of my life in your hands. You're filling my prescription here. So don't be angry while you're filling my meds, you may throw the wrong thing in there... it just helps to be courteous. If I'm a confused old lady and I don't understand this medicine and I'm confusing you, please call your manager and have her explain to me. Just treat that person with respect first.”

“... I left my old pharmacies for the same reason as number 2 [PSC]...I would really like to feel comfortable while I'm at a place and I'd like to know that the people know who I am and what I'm there for. Getting lost in the shuffle, I ain't down with that. If you can't talk to me and call me by name or a number or something, there's definitely going to be change”

Pharmacy Staff communication is important compared to other CEPSS

“...I don't count on the pharmacist as the expert about my health. And, if I have a medication-related communication, I might ask the pharmacist but I'm more likely to look it up online or go through My

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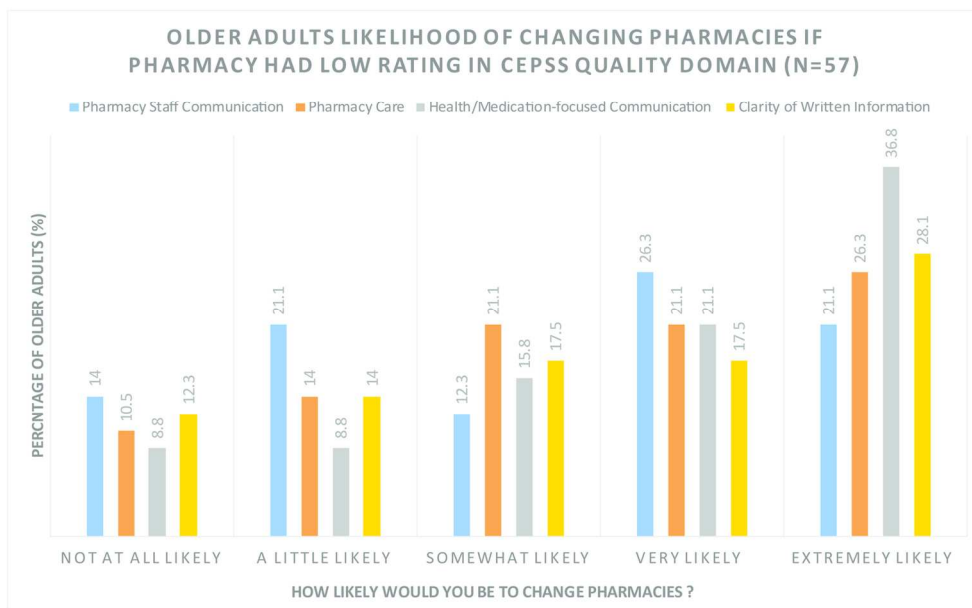
domains.	Chart with my general practitioner. But, being treated with respect by the pharmacy staff is very important.”
<i>Clarity of Written Information (CWI)</i> is the most important quality domain that would prompt older adults to switch pharmacies.	<p>“I would want to make sure that...they have my prescriptions correctly labeled and written and also that, when they give me information on how to take that prescription and how it would react with other medicines, you want that to be correct... it gives me an understanding about my medication ... you know, what shape and color the pill is...”</p> <p>“I would change just for that reason [CWI], yes, because that's important to me. My medication is why I'm there in the first place. I want the correct information about it. So, yes that would make me change, if they didn't have that straight.”</p>
<i>Pharmacy Care</i> is the most important quality domain that would prompt older adults to switch pharmacies	“The pharmacy care is very important for me, because with the interaction [with the pharmacist] you can do other things that are related to my condition and then the concern of the staff for my condition; I think that pharmacy care is the most important for me.”
<i>Pharmacy Care</i> is important compared to other CEPSS Domains	“...that's [pharmacy care] going to cover everything, the care from my pharmacist, my interaction with my pharmacist, everything with the pharmacist is going to cover my medication, communication, ... - if that was not up to par, if that was really poor-quality low, then that would cause me to go elsewhere.”

Table 5: Older Adults' Perceptions of the Influence of the Consumer Experience with Pharmacy Services Survey (CEPSS) in choosing/switching pharmacies

Objective	Perceptions	Sample Quotations
Perceived influence of the CEPSS in choosing pharmacies	Some older adults will use the CEPSS, in addition to other factors, to choose pharmacies.	"I think these [CEPSS domains] are important factors, but, there are other factors that I would look at in choosing a pharmacy like having complaints about inaccuracy, storing prescriptions, their billing, location, local variety of other items available in the store. So, this is only one group of factors I'd take in choosing a pharmacy. And there are the other factors that'd be equally or more important."
	Older adults think using the CEPSS to choose pharmacies will outweigh the use of convenience.	"... the first one [pharmacy] that I was going to, to get my prescriptions, it was because of convenience. But then the staff wasn't as friendly and they didn't ask you questions, and then somebody recommended someplace else but it was inconvenient. But it turned out... it was worth the inconvenience, because the staff there was really concerned and I wasn't afraid to ask them questions."
Perceived influence of the CEPSS in switching pharmacies if current pharmacy had low ratings in domains	Some older adults would discount or ignore the low ratings of their pharmacy, placing more stock in their own experiences of their pharmacies.	"I would ignore -- I'm very happy with my pharmacist and my pharmacy. And it wouldn't make any difference what the report said. I mean, I've been to different pharmacists in the past and where I'm at now they know me by name, they talk -- I mean it's just a very friendly relationship, and if I saw that they had a poor rating, I would really question the people that did the study."
		"I agree with 1001, I've been using this pharmacy for a number of years, it meets all these criteria, I would give it, you know, high marks on all this criteria, so I don't think I would change my use of that pharmacy."
	Personal experience with a pharmacy may override the switch of pharmacies based on the CEPSS.	"I probably wouldn't use [the CEPSS] because I'm happy with mine and I'd say they'd cut another tree down to write a report on stuff that is pretty obvious because you either go in there and you're happy or you're not happy and you go someplace else.... experience means more than the report."
	Some older adults would	"It might be down the road a little further, but I'd be looking for another

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change their pharmacies if they found their pharmacy rated low in the domains.	pharmacy.” “Get your running shoes!”
A switch in pharmacy will only occur if there is a negative personal experience.	“I don't think I would change my pharmacy unless I had a bad experience at the one I went to....a personal experience.”
A switch in pharmacy will occur because the CEPSS is based on other consumers' experiences.	“I know the best information comes from my peers, the other people that are using the pharmacy....If there was a report that I knew that my peers contributed to that information and it said the pharmacy that I'm using right now is like, at the bottom of the list, I'd just leave... I'd be trying to get to the one that is at the top of the list, because I want to be treated fairly, I want to be acknowledged when I come up in there, ... Some pharmacies have issues with having staff that are not as knowledgeable as others. And we don't know that. We just go there and get our prescriptions, but if I see a report that says, 'Out of 100 people, everybody says (Pharmacy name) on that corner is the best because they felt well treated...., in communication they had time, the pharmacies were listening to them.' ... I would definitely I'd be out of there.”
Some older adults would want to know why their pharmacy rated low	“I'm going to the manager of that pharmacy and saying, 'Look, this is where you've reached, can we do something about this?' And see what the reaction is. If it's, 'Oh, we'll try to do better,' I might stay, but if they don't come up to my satisfaction or to the number one, then I leave.”

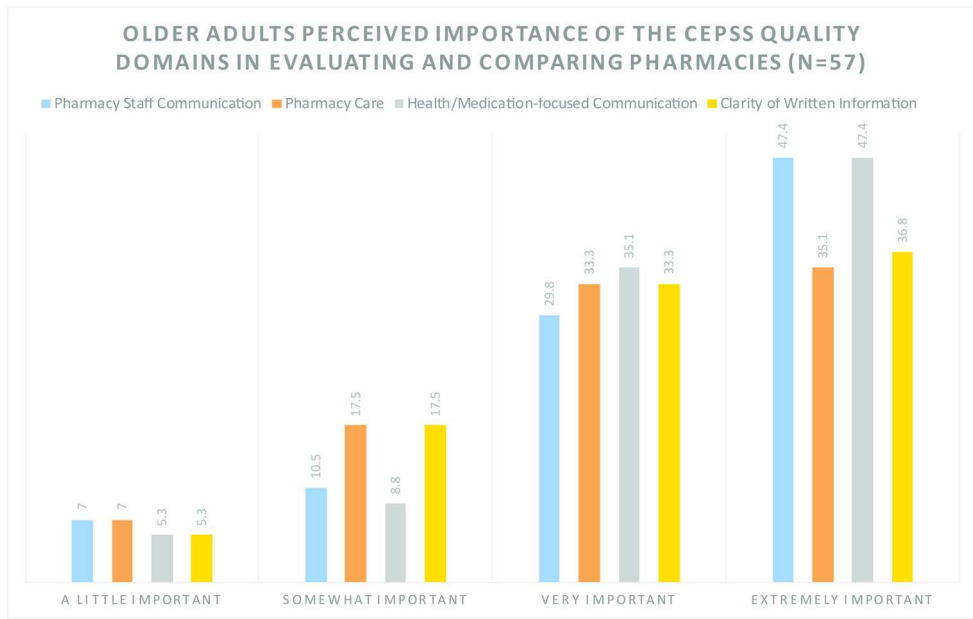


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COREQ (CONsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
<i>Personal characteristics</i>			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
<i>Relationship with participants</i>			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
Domain 2: Study design			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
<i>Setting</i>			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the interview or focus group?	
Duration	21	What was the duration of the interviews or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
<i>Data analysis</i>			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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