



Frontiers in Public Health Services and Systems Research

Volume 4 | Number 5

Article 3

September 2015

Measuring Population Care Performance: Development of the Population-Patient Satisfaction Survey for Use with Community Groups

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Recommended Citation

Issel LM, Lurie C, Bekemeier B. Measuring population care performance: development of the population-patient satisfaction survey for use with community groups. *Front Public Health Serv Sys Res* 2015; 4(5):13–18. DOI: 10.13023/FPHSSR.0405.03.

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Measuring Population Care Performance: Development of the Population-Patient Satisfaction Survey for Use with Community Groups

Abstract

Background: Assessing the satisfaction of the “population-patient” requires conceptualizing the dimensions of satisfaction differently from that of individual patients.

Purpose: The focus of this study was to develop and pilot test a short questionnaire that can reliably assess satisfaction with the care provided by public health nurses (PHNs) carrying out population-level activities in their communities.

Methods: An instrument-development approach was used. With input from five experts, items were developed to assess seven dimensions of population-patient satisfaction, and then refined before use in the community with a convenience sample of community participants recruited by PHNs in six counties across two states. The pilot yielded 134 surveys collected on 28 different dates over 5 years. Analysis included calculating the means and alpha reliability of each satisfaction dimension and the overall satisfaction.

Results: All dimensions except *communication* (alpha 0.68) had an alpha reliability above 0.80. The *enthusiasm* dimension received the highest rating (mean=4.6, SD=0.60). The *respect* dimension had the lowest rating (mean=4.3, SD=0.80). Significant differences between the two states ($n=32$, $n=97$) were found for *values* ($p=0.02$) and *communication* ($p=0.03$). Analysis of variance showed significant differences by local health departments (LHDs) on *values* ($p=0.001$), *enthusiasm* ($p=0.002$), and *communication* ($p=0.02$). Although the *enthusiasm* subscale seemed to be the highest for most LHDs, no clear pattern of strengths and weaknesses per LHD emerged.

Implications: Data from using the Population Patient Satisfaction Survey can be used to identify perceptions of the community regarding the quality of population-focused activities and thus areas for improvement which would then enhance community health.

Keywords

population-focused care, questionnaire, satisfaction

Cover Page Footnote

Funded in part by HRSA Bureau of Health Profession, Division of Nursing, under the Nurse Education, Practice and Retention Program, grant number D11HP14605. No competing financial or editorial interests were reported by the authors of this paper.

INTRODUCTION

Public health nurses (PHNs) increasingly work with community groups and local leaders to improve the health of a county's population.¹ PHNs focus on the population through activities such as leading community assessment processes with local agencies and community volunteers, managing vaccine distribution and related information updates with community providers, or facilitating the development of community programs for teenage parents. Effectiveness in such population-focused activities requires that PHNs develop trusting relationships and have consistent interactions with community partners.

In healthcare organizations, patient satisfaction is one indicator of the quality of care, including nursing care, and is a basis for quality improvement actions.² Satisfaction, as a concept, typically measures the distance between expectations and perceptions across dimensions of experience.³ Patient-satisfaction tools used in hospitals and healthcare settings address individual patient experiences. Issel and Bekemeier⁴ argued for thinking of PHN practice in terms of the population-patient. Assessing satisfaction of the "population-patient," however, requires conceptualizing dimensions of satisfaction as different from dimensions assessed by existing individual-level patient satisfaction tools. For PHNs providing care to whole communities, conceptualizing satisfaction with their care as an individual-level construct is inconsistent with public health perspectives of the "patient" being the population. Population-level care is, thus, distinct from aggregations of individual perceptions of personal care received.

No known tool exists for measuring population-patient satisfaction. This requires gathering data from groups in a community with whom PHNs interact for the purpose of providing population-focused care. A tool to measure perceptions of population-level care delivered could provide public health agencies with data to guide population-focused quality improvement efforts. The purpose of our study was to develop and pilot a questionnaire, assessing satisfaction with care provided by PHNs conducting population-level activities in their communities.

METHODS

An instrument-development approach was used with a convenience sample of participants recruited by PHNs in six counties in two states. Instrument development occurred in stages. After an exhaustive literature search of existing measures, a panel of five PHN experts met regularly in 2009 to develop the questionnaire content. Three of these experts were local health department (LHD) leaders and managed many staff. Two of the experts were from academic settings. Several rounds of review and revisions led to improved item wording and to refinement of seven key dimensions of satisfaction: *value* (overall contribution to group process and group activities, viewed as improving functioning and effectiveness of the group which is representing a population); *communication* (conveys information via verbal and written modes; viewed as understood, providing and receiving feedback, listening actively); *respect* (conveys willingness to accept differing points of view without judgment); *leadership* (viewed as providing direction, vision, or support needed for the group to accomplish goals); *enthusiasm* (conveys a desire and willingness to contribute to meeting the group's goals); *expertise* (conveys a command of, and shares, best practices and current knowledge on issues); and *population-focus* (demonstrates understanding of connections between person, environment and health, and how to improve those connections). Most items referenced "groups and communities" as a means of keeping the population-focus for the respondent. The expert panel's involvement in tool development supports initial face validity.

The panel emphasized incorporating convenient, easy-to-use, and meaningful response categories. This led to a 5-point Likert scale with anchors: *greatly exceeded expectations* and *greatly unmet expectations*. Pilot testing occurred among six LHDs in two states (including the LHDs in which expert panel members were leaders) and in four waves (2010, 2012, 2014, and 2015). A convenience sample of PHN staff from each LHD was recruited for each wave and instructed to distribute the one-page questionnaire to each person present at the end of a community meeting (such as school- or clinic-based educational groups or community health initiative committees) in which the PHN was an active participant or leader. PHNs explained the questionnaire purpose. Participants at the community meeting, as survey respondents, anonymously rated whether the PHN met their expectations on each of the seven dimensions during the meeting they were attending.

Respondents put their questionnaires into an immediately sealed envelope, which was mailed to and analyzed by one of the academic members of the panel. Neither PHN staff nor their supervisors saw any responses. The research was deemed exempt from IRB approval as no identifying PHN or respondent information was recorded. The only recorded identifiers were the date on which data were collected and the LHD for which the PHN worked.

Analyses. The pilot yielded 134 surveys collected from 28 different groups that met over 5 years. Analysis included calculating the means and alpha reliability of each satisfaction dimension and overall satisfaction.

RESULTS

The scores for each subscale, as well as the overall population-patient satisfaction, reflected a high level of satisfaction with the PHNs providing more or much more than expected. The *enthusiasm* dimension of population-patient satisfaction received the highest rating, while the *respect* dimension had the lowest rating. All dimensions except *communication* had an alpha reliability above 0.80 (Table 1). Given efforts to assure anonymity, comparisons were available only by state and LHD. Significant differences between the two states ($n=32$, $n=97$) were found for *values* ($p=0.02$) and *communication* ($p=0.03$), but otherwise had similar values for the satisfaction dimensions. Analysis of variance showed significant differences by LHD on *values* ($p=0.001$), *enthusiasm* ($p=0.002$), and *communication* ($p=0.02$). Figure 1 shows that each LHD varied slightly across the dimensions. Although the *enthusiasm* subscale seemed to be highest for most LHDs, no clear pattern of strengths and weaknesses per LHD emerged.

Feedback was received from participating PHNs via practice partners on the expert panel. The PHNs indicated that the questionnaire was easy for community members to complete, and community members raised no concerns about the questions. Initial reluctance came from the PHN leaders from the six LHDs, expressing concerns about the data potentially being used for employee evaluations. As reported by the PHN leaders, reluctance also came from their staff who had concerns about respondent burden among participating community members. After the first round of data collection, the concerns and reluctance of both PHN leaders and staff diminished.

Table 1. Descriptive stats, 28 different groups, across 6 LHDs between 2010 and 2014 (n=134)

Scales	# items	Mean	SD	Alpha Reliability	Example Items
Enthusiasm	3	4.5	0.63	0.90	Showed enthusiasm for what we are trying to accomplish for groups and communities
Communication	2	4.4	0.68	0.68	Listened and heard what we had to say about issues for groups and communities
Leadership	3	4.4	0.63	0.84	Offered guidance on best next steps to address health problems of groups and communities
Respect	2	4.3	0.81	0.87	Accepted different cultural points of view and lifestyles
Value	3	4.3	0.72	0.80	Made valuable contributions related to the health and wellness goals for groups and communities
Population Focus	3	4.3	0.81	0.86	Had the “big picture” about health and wellness in our community and for our community
Expertise	3	4.3	0.77	0.82	Was knowledgeable about community policies and community resources
All items=PPSS	19	4.4	0.62	0.96	

PPSS, Population-Patient Satisfaction Survey

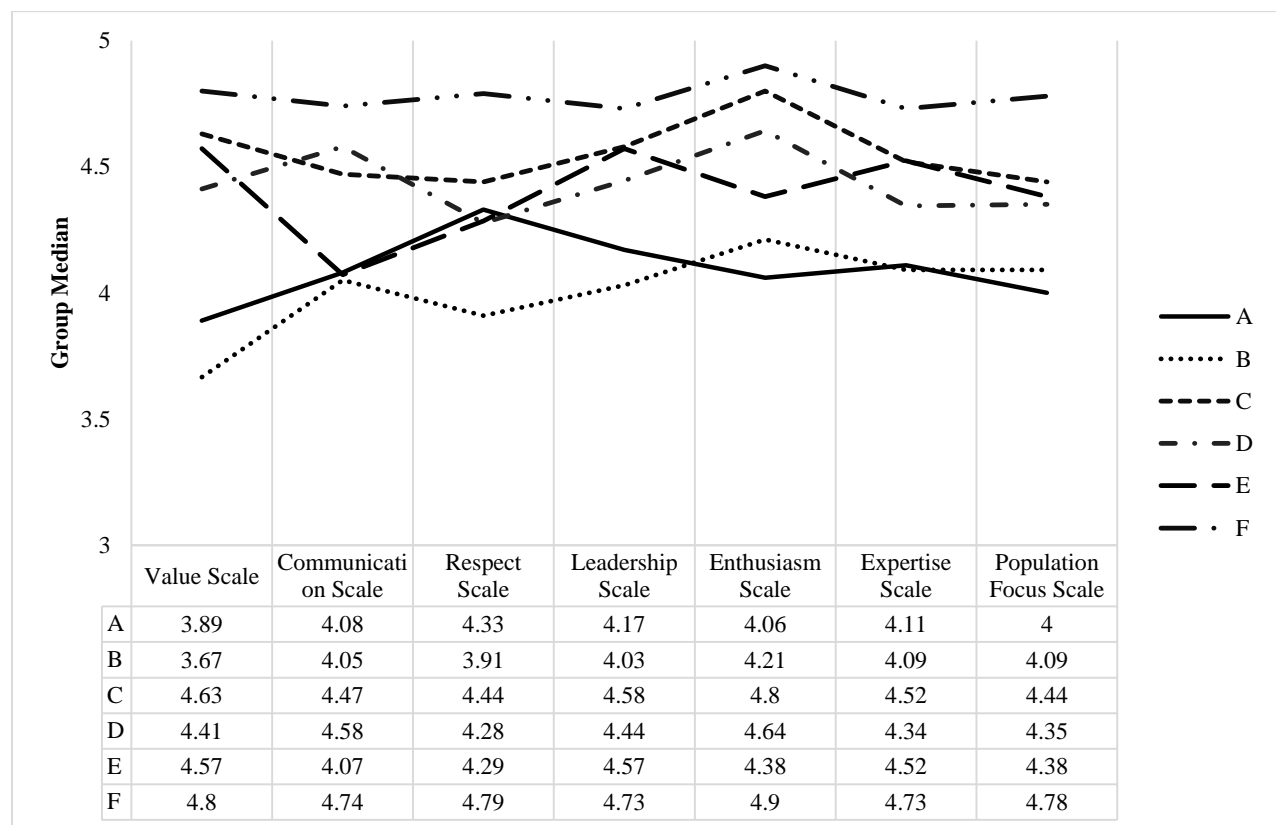


Figure 1. Population-patient satisfaction subscale scores by Counties A through F (n=134)

IMPLICATIONS

Overall, the sample of PHNs appeared to surpass expectations in working with community participants on all satisfaction domains, indicating that these PHNs successfully engaged in population-focused behaviors. The instrument's *communication* dimension deserves revision to improve its reliability. Replication is warranted with a larger sample, as is test-retest reliability examination and validity testing. Investigation into correlates of population-patient satisfaction with dimensions of performance of PHNs is also needed. Initial reluctance to use the tool could have been due to perceptions that it could be interpreted as a personnel issue, particularly if a PHN had low Population-Patient Satisfaction Survey (PPSS) scores. This was overcome by not recording the PHN's name and thus disconnecting the data from individual PHNs.

The data collected through this questionnaire provide a basis for making quality improvement changes with regard to PHN population-focused practices and service delivery, as well as identifying satisfaction levels by subpopulations. Further, the tool could be used as part of training PHNs for population-focused practice. Data-driven changes that improve the quality of population-focused activity in communities could serve to improve the health of thousands in a community, much like patient-satisfaction questionnaires have served to improve the care of individual patients.

SUMMARY BOX

What is already known about this topic? Data on the satisfaction of populations does not exist, in contrast to overwhelming data on the satisfaction of individuals.

What is added by this report? Satisfaction is redefined to be applicable to population-focused health care and a reliable measure is presented.

What are the implications for public health practice, policy, and research? The Population-Patient Satisfaction Survey (PPSS) has reliability and can easily be administered to members of community groups as a means to assess the overall satisfaction of work done with a population focus.

REFERENCES

1. Storey-Kuyl M, Bekemeier B, Conley E. Focusing “upstream” to Address Maternal and Child Health Inequities: Two Local Health Departments in Washington State Make the Transition. *Maternal and Child Health Journal* 2015 Jun 17. DOI: 10.1007/s10995-015-1756-4.
2. Elliott MN, Cohea CW, Lehrman WG, et al. Accelerating improvement and narrowing gaps: trends in patients' experiences with hospital care reflected in HCAHPS public reporting. *Health Serv Res* 2015 Apr 8. doi: 10.1111/1475-6773.12305.
3. Zeithaml VA, Parasuraman A, Berry LL. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press, 1990.
4. Issel LM, Bekemeier B. Safe practice of population-focused nursing care: development of a public health nursing concept. *Nurs Outlook* 2010;58(5):226–32.