

Institutional Capacity to Provide Psychosocial Care in Cancer Programs:

Addressing Barriers to Delivering Quality Cancer Care

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Running Head: Institutional Capacity for Delivering Psychosocial Care

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Abstract

Objective: This study investigates barriers and promoters to delivering quality psychosocial services in 58 cancer programs across North America.

Methods: Oncology care providers ($n=2,008$) participated in a survey in which they identified barriers and promoters for delivering psychosocial care at their respective institutions.

Multilevel modeling was used to examine (1) the extent to which provider and institutional characteristics were associated with the most common barriers, and (2) associations between perceived barriers and institutional capacity to deliver psychosocial services as measured by the Cancer Psychosocial Care Matrix.

Results: Across 58 Commission on Cancer-accredited programs in North America, the most frequently reported barriers were inadequate number of psychosocial care personnel, lack of funding, inadequate amount of time, lack of systematic procedures, and inadequate training for oncology providers. Overall, there were few significant differences in reported barriers by type of institution or type of provider. In general, the most frequently reported barriers were

significantly associated with the institution's capacity to deliver quality psychosocial care. In particular, the lack of a systematic process for psychosocial care delivery significantly predicted lower levels of institutional capacity to deliver quality psychosocial care.

Conclusions: When identifying barriers, respondents reported a greater number of institutional barriers than barriers related to individual provider or patient characteristics. These results present a compelling case for cancer programs to implement and monitor systematic procedures for psychosocial care and to integrate these procedures in routine clinical practice.

Background

Despite increased attention to integration of patient-centered psychosocial services into routine cancer care, there has been limited empirical evidence on how best to do so.¹ In 2016, the Commission on Cancer (CoC) required all accredited programs to meet Standard of Care 3.2 on Psychosocial Distress Screening.² The Standard stemmed from the 2007 Institute of Medicine (IOM) report, *Cancer care for the whole patient: Meeting Psychosocial Health Needs*, which promoted the vision of providing every cancer patient with quality psychosocial care.³ The CoC definition of high-quality psychosocial care for cancer patients involves screening patients for distress and psychosocial health needs, referring patients with distress for the

appropriate provision of care, and systematic follow-up and reevaluation of the patient.* In 2018, the Association of Oncology Social Work's Project to Assure Quality Cancer Care (APAQCC) indicated cancer centers were performing moderately well in delivering patient-centered psychosocial services; however, gaps and disparities in the capacity of institutions to provide high quality care existed.⁴ These shortcomings and disparities in integrating and implementing psychosocial screening and interventions into routine clinical practice called for research to examine the organizational (e.g., provider, health systems) factors potentially contributing to those gaps and to determine the best model of service delivery.¹

While there are many factors that can hinder quality psychosocial care, a systematic review of 25 studies revealed the most common barriers to psychosocial care implementation occur at the organizational level,⁵ and reporting of these barriers differ depending on who is reporting. For example, nurses reported lack of time and resources as common barriers,⁶ whereas physicians have reported negative perceptions of psychosocial care (e.g., lack of scientific validity, not a patient need), lack of knowledge about services, and not enough time.⁷ Health professionals also identified barriers related to the culture of an organization, such as lack of team cohesion, working in isolation, and lack of training in psychosocial aspects of care. Many patients have reported "no need for psychosocial services and support,"⁸ as well as lack

* In 2020, the Commission on Cancer updated the standard on Psychosocial Distress Screening with more details on procedural and policy requirements. However, at the time of our survey, programs were required to adhere to the 2016 standard.

of information about psychosocial services, problems with access, and stigma associated with seeking counseling as barriers to psychosocial care.⁵

Studies have also implicated institutional barriers to psychosocial care such as lack of clinical psychosocial care protocols, inadequate resources and training in implementation, lack of distress screening policy and buy-in by stakeholders (administration, clinical staff, and others).⁹ Time, staff uncertainties, competing demands, and ambiguous accountability are frequently reported barriers to the adoption of distress screening.^{10,11} A national survey of 467 oncology social workers found similar barriers at the institutional level, including lack of standard protocols for distress screening, too many forms for patients and caregivers to complete, and lack of support from administration or medical providers.¹² Most of the above-described studies were conducted during the initial roll-out and early years of the CoC distress screening standard before many of the cancer centers had experience with newly established protocols. Furthermore, each study tended to survey only one type of provider (physicians, nurses, social workers).

The present study provides a more recent examination of factors that promote or prohibit the delivery of quality psychosocial services. We examine barriers and promoters from the diverse perspectives of varied medical and psychosocial care providers at accredited cancer programs across North America. It is part of the APAQCC project conducted by oncology social work researchers¹³ under the auspices of the Association of Oncology Social Work (AOSW).

Specific aims of the present study were to 1) identify the most common barriers and promoters of psychosocial service delivery as reported by medical providers and psychosocial practitioners; 2) determine the type of provider and institutional characteristics that are associated with the most common barriers to delivery of psychosocial services; and 3) examine if there is a relationship between types of barriers and the perceived quality of psychosocial services.

Methods

Sample

Questionnaires assessing the extent to which individual institutions were engaged in the provision of quality psychosocial care were completed by 2,281 health professionals (physicians, physician assistants, nurses, nurse practitioners, social workers, psychologists, and psychiatrists), all of whom provided direct services to cancer patients in 58 accredited cancer programs across North America. The survey was distributed in each cancer program by a social worker who was participating in APAQCC.⁴ The social workers used internal communications and meetings to publicize and subsequently administer an online or hard copy survey to colleagues at their respective institutions. Across all sites, Institutional Review Boards reviewed and approved the study. The IRB at the coordinating site (University of Michigan) deemed it non-regulated human subjects research; informed consent was not required

(HUM#HUM00087198). The project, in essence, was deemed quality assurance or simply not regulated per Code of Federal Regulations.

Measures

Barriers and promoters of psychosocial care delivery. The survey included two open-ended questions to identify barriers and promoters to distress screening and distress management protocol implementation: 1) What do you perceive as the greatest barrier to the implementation of psychosocial care at your institution? 2) What do you perceive as the greatest facilitating factor to the implementation of psychosocial care at your institution?

Perceived quality of psychosocial services. The Cancer Psychosocial Care Matrix (CPCM)¹⁴ is a 10-item scale representing an institution's capacity to provide quality psychosocial services. The items indicate five key components of psychosocial care, as defined and recommended by the Institute of Medicine (IOM):¹⁵ patient-provider communication (Q1), patient need for screening/assessment (Q3), care planning and coordination (Q4a-4c), provider training and education (Q2a, Q6), evaluation of service delivery and patient outcomes (Q2b, Q5), and quality improvement (Q7). CPCM was designed to enable NCI-designated Community Cancer Centers to assess their institutional capacity to deliver quality cancer care and identify areas for improvement. Each of the 10 items has a unique set of five response options with a score of one indicating minimal provision of the component of care and a score of five indicating a comprehensive and systematic approach to that care component. Calculating a

composite matrix score is not recommended due to the variation in the indicators for each item.¹⁴ For this study we used the score for each individual item as an outcome variable.

Institutional and provider characteristics. Each cancer program was coded according to its CoC designation as one of four institutional types: 1) National Cancer Institute-designated program; 2) Academic Comprehensive Cancer Program; 3) Comprehensive Community Cancer Program; 4) Community Cancer Program; or 5) other (Integrated Network Cancer Program, Free Standing Cancer Center Program, Veterans Affairs Cancer Program). These categories are based on the type of facility, the services provided, and the number of analytic cases per year.

Patient volume at each institution was measured by its reported number of analytic cases for the previous year. Analytic cases were calculated from each center's registry data on the annual number of cases with the initial diagnosis of cancer and/or the first course of treatment.¹⁶ Similar to earlier analyses of these data,⁴ we constructed a dichotomous variable to distinguish cancer programs with at least 30% of their analytic cases being racial minority patients from those serving less than 30% racial minority patients.

The current study focused on responses from three classifications of providers routinely involved in providing direct care to cancer patients categories: (1) Primary/mid-level providers: oncologists, nurse practitioners (NPs), and physician assistants (PAs) who were primarily responsible for developing treatment plans; (2) Nurses (including nurse navigators) who

assisted with administering therapies and providing supportive care; (3) Psychosocial providers (social workers, psychologists, psychiatrists).

Data Analysis

Written responses to the open-ended questions about barriers and promoters were extracted from an SPSS file holding all survey data. Using a qualitative coding approach with an iterative process,¹⁷ we first identified all barriers and promoters that were mentioned more than two times. Then we grouped them into broader categories of patient, provider, and system/organizational characteristics. Examples of patient characteristics included attitudes or beliefs about psychosocial services and behaviors that may hinder or facilitate obtaining psychosocial services. Provider characteristics were exemplified by attitudes toward the importance of psychosocial care, and demonstrations of a commitment to psychosocial care. Examples of system/organizational characteristics were resources (physical space, number of personnel, funding, size of programs) or processes such as distress screening protocols.

During the second step of coding, two study investigators (KK/DB) individually coded a random number of responses (every 15 cases) and checked for inter-rater reliability across 74 individual ratings. A Kappa value of .888 was obtained for barriers and .864 for promoters. Three study investigators (KK/DB/BZ) resolved specified discrepancies and then one investigator (DB) coded all of the responses to tabulate final barriers and promoters.

Since survey respondents were nested within each institution, we used multilevel modeling to investigate effects of within-institution predictors and between-institution predictors on outcomes. We conducted analyses to determine the extent to which institutional and individual characteristics were associated with the most common barriers (Aim 2) and to examine if there was a relationship between barriers and the perceived quality of psychosocial services (Aim 3), controlling for institutional characteristics and provider type. Since the outcomes for Aim 2 (identified barriers) were binary data, we reported the odd ratios of each barrier. Then, for Aim 3, we reported the coefficients of the key variables including the identified barriers for the perceived quality of psychosocial services. Individual characteristics (medical providers, nurses, psychosocial providers) were variables nested within institutions and were entered as level-1 variables. Institutional characteristics (institution type, number of analytic cases, number of minorities, number of social workers) were entered as between-institution variables (level-2). We used Full Information Maximum Likelihood estimation;¹⁸ intraclass correlation (ICC) was calculated to assess the proportion of variance.¹⁹

Results

Aim 1: Perceived Barriers and Promoters

Two thousand and eight respondents (88%) answered at least one of the open-ended questions about implementation barriers or promoters at their institution. Description of the sample is summarized in Table 1.

Barriers were reported by 1375 respondents and promoters by 1170 respondents. We ran frequencies of our list of types of barriers and promoters identified by our coding. The five most commonly-mentioned barriers were: inadequate number of personnel (27.6%), lack of funding (12.2%), inadequate amount of time (11.9%), no systematic procedure across cancer program (10.9%), and inadequate training (6.0%). Most barriers were reported at the organization/institutional level, as summarized in Figure 1a.

Respondents' most frequently cited promoters were quality of social workers (16.5%), systematic procedures for psychosocial care in place (13.1%), adequate number of personnel (10.3%), provider behavior (10.1%), and presence of dedicated staff or personnel (8.3%). While promoters also included institutional factors, respondents emphasized promoters relating to the quality and dedication of staff and personnel with particular emphasis on the quality of social workers (Figure 1b). Many promoters were the inverse of the barriers; for example, inadequate number of personnel (barrier) and adequate number of personnel (promoter) or inadequate resources (barrier) and adequate resources (promoter).

Aim 2: Barriers and Institutional and Provider Characteristics

Multilevel regression models evaluated the extent to which reporting the four of the most frequently endorsed barriers varied by characteristics of survey participants (type of provider) and of their respective institutions (CoC classification, number of social work FTEs, volume of cases, proportion of racial minority patients served).

Barrier #1: Inadequate number of personnel. There were no differences across institutional variables (cancer program, patient minorities and volume of cases) on the reporting of inadequate number of personnel as a barrier to psychosocial services. The odds of medical primary/mid-level providers (oncologists, PAs, NPs; OR = .35, CI; .237- .432) and nurses (OR = .38, CI; .194-.709) reporting inadequate number of personnel were significantly less than were the odds of psychosocial providers doing so, after controlling for cancer program type, number of social work FTEs, number of cases, and percentage of minority patients.

Barrier #2: Lack of systematic procedure. Controlling for institutional type, number of social workers, number of cases, and percentage of minority patients, the odds of primary/mid-level medical providers reporting lack of a systematic procedure as a barrier to delivering psychosocial care (OR=.54, CI; .390-1.424) were significantly lower than the odds of psychosocial providers reporting this barrier.

Barrier #3: Inadequate time. There were no significant differences in the odds of reporting inadequate time as a barrier across institutional and provider variables.

Barrier #4: Inadequate training. Similarly, there were no significant differences in the odds of reporting inadequate training across institutional and provider variables.

Aim 3: Barriers and Institutional Capacity to Deliver Quality Psychosocial Care

Each of the four most frequently endorsed barriers was entered into analytic models to determine if specific barriers were predictors of the perceived institution's capacity to deliver

psychosocial care controlling for institutional characteristics (volume of cases, type of institution, number of social work FTEs) and provider type. The outcome variable, delivery of quality psychosocial care, was measured by each of the 10 items of the *Cancer Psychosocial Care Matrix*.¹⁴

Barrier #1: Inadequate number of personnel. Providers who reported an inadequate number of personnel as a barrier at their institutions were more likely to report lower scores on two items: implementing psychosocial plans of care and quality oversight ($p < .05$).

Barrier #2: Lack of systematic process. Providers who reported that the lack of a systematic process was a barrier in their institutions were more likely to report lower levels of the institutional capacity to deliver quality psychosocial care. There were significant associations between the barrier of no systematic process and the following items of the Matrix: 1) communicates to cancer survivor and family importance of psychosocial needs and care ($p < .001$); 2) provides training in patient/provider communication for staff ($p < .001$); 3) monitors effectiveness of patient/provider communication ($p < .001$); 4) identifies psychosocial health needs of cancer survivors ($p < .001$); 5) designs and implements psychosocial plan of care ($p < .001$); 6) Engages and supports cancer survivor in managing their illness and health ($p < .001$); and 7) quality oversight ($p < .01$). (Table 2)

Barrier #3: Inadequate time. Providers reporting inadequate time as a barrier were more likely to report lower levels of the institutional capacity on four items: monitor

effectiveness of patient/provider communication, design and implement psychosocial plan of care, engage and support cancer survivors in managing their illness and health, and quality oversight ($p < .05$).

Barrier #4: Inadequate training. There were no significant associations between inadequate training and items measuring quality psychosocial services.

Discussion

In identifying barriers to care, survey respondents emphasized institutional characteristics as being most relevant to the integration of distress screening protocols and psychosocial care. Similar to previous studies, we found lack of training,⁸ lack of protocols, and inadequate resources⁹⁻¹¹ to be key barriers to the delivery of quality psychosocial care. Few respondents reported that patient characteristics were substantial or meaningful barriers; however, studies that include patient respondents may offer a different perspective of barriers. Prior studies suggest that patients report lack of information about services and transportation, and limited confidence in services as important barriers to accessing psychosocial services.⁵

Perceived promoters of quality psychosocial care tended to be inversely related to the barriers of care. Not only did some promoters reflect the opposite of barriers but the rankings were very similar. For example, having systematic procedures in place and an adequate number of personnel were in the top five of the promoters while not having systematic procedures and inadequate number of personnel were in the top five of the barriers. The most frequently cited

promoter was “quality of the social workers.” Many of these providers recognized social workers as the primary providers of psychosocial care services and viewed the social workers as critical to delivery of quality psychosocial care.

A second aim of this study was to determine if there were differences in perceived barriers by type of provider respondent and institutional characteristics. Institutional characteristics (type of cancer program, number of analytic cases, number of social work FTEs, minority patient population) did not make a significant difference in the types of barriers reported. Barriers were similar across CoC-accredited centers, from small community cancer programs to large academic-affiliated centers and comprehensive cancer programs. This was unexpected given a previous analysis with this sample found significant differences among types of cancer programs in their evaluation of the institutional capacity for delivering psychosocial services.⁴ In the previous study there was a consistent trend for providers in community cancer programs to rate capacity at a higher level than providers at other institution types. Hence, although the capacity for psychosocial care delivery differed across different types of cancer programs, the barriers to adequate service delivery may be fairly similar. Future research is needed to identify, test and compare strategies that social workers implement to overcome barriers to psychosocial care.

Variations in reporting barriers in the current study was evident by provider type. Psychosocial care providers were more likely than medical care providers to identify inadequate

number of personnel and lack of systematic procedures as barriers to psychosocial care delivery. As primary providers of psychosocial care, oncology social workers are more likely than medical care providers to be attuned to and directly experience inadequacies in psychosocial personnel and implementation of protocols in psychosocial care.

Finally, we examined if there was a relationship between types of barriers and the perceived institutional capacity to deliver psychosocial services. There were some significant relationships between the barriers of inadequate time and number of personnel with the capacity of institutions to provide quality psychosocial services. The barrier that seemed to impact the majority of items measuring quality of services was the lack of a systematic process. This finding begs the questions: Are psychosocial services systematically integrated in routine cancer care? Are there procedures and protocols in place for screening, assessing, and managing the emotional distress and psychosocial needs of patients?

Clinical Implications

The findings of the present study suggest psychosocial services must be systematically integrated in routine cancer care in order to build an institution's capacity to deliver quality psychosocial care. Protocols must be developed and implemented for all of the aspects of psychosocial care as defined by the *Psychosocial Care Matrix*.¹⁴ These include: 1) communicating to cancer survivors and families the importance of psychosocial needs and care; 2) providing training in patient/provider communication for staff, 3) monitoring effectiveness of

patient/provider communication 4) identifying psychosocial health needs of cancer survivors; 5) implementing psychosocial plans of care; 6) engaging and supporting cancer survivors in managing their illness and health and 7) and monitoring quality of psychosocial care.

Furthermore, a “system-wide approach” is needed to integrate supportive care into routine practice.²⁰⁻²² As Ristevski and colleagues emphasized, “For this to occur, supportive care must be promoted as worthwhile by hospitals and institutional support needs to include clinician training, scheduled screening to fit with current clinical care (e.g. as part of prescheduled appointments), and adequate resources such as dedicated nursing time and identified referral networks” (p E210).²⁰ Cancer programs can draw upon the NCCN Distress Management Guidelines for the implementation of standards of psychosocial care.²¹ These principles clearly specify protocols of distress management that could assist cancer centers on meeting the Commission on Cancer’s accreditation standards on screening all patients for psychosocial distress and referral of psychosocial care as needed. The Guidelines strongly encourage a multi-disciplinary approach, the support of the institutional leadership, and institutional buy-in.

Finally, several promoters of quality care stood out in the study and are instructive for the development of future strategies to enhance psychosocial care delivery. In particular, the dedication and commitment of providers promoted provision of psychosocial care. This finding

suggests patients may benefit from centers that invest in professional development, and the satisfaction and selfcare of their workforce.

Limitations of Study

The results of this study are limited in that they rely primarily on perceptions of providers and not on data derived from observers who are not vested in the outcomes. Yet, the findings are consistent with other reports identifying barriers to successful implementation of distress screening protocols in studies of just single or a few institutions. The significance of the findings reported here are supported by a high participation rate among cancer programs. The findings may be biased in that participating social workers applied to APAQCC as a way of showcasing their services, and are thus representative of only higher functioning cancer programs; however, this argument shrivels given APAQCC data (reported elsewhere) indicating wide variability in institutional capacity to deliver psychosocial care and in the institution's own adherence rates to distress screening protocols.

Conclusions

Although there has been progress toward compliance with the COC mandate, the slow rate of uptake of patient-centered standards of care may be the result of institutional barriers including: inadequate number of psychosocial providers for the volume of patients, lack of integration of psychosocial care in routine care, no established systematic distress screening and management protocols, lack of training in distress screening and management for staff,

inadequate institutional support, and lack of funding. The evidence from this study provides us with a clearer picture of barriers to delivering quality psychosocial care and suggests strategies to overcoming these barriers. While there is room for institutional changes, improvement may happen faster if there were more psychosocial providers who could make sure that all patients are screened for distress and have access to psychosocial support. To address the psychosocial needs of cancer patients along with their medical needs, clinical services need to be delivered in an integrative, patient-centered, and systematic way so that all patients can benefit.

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Conflict of Interest Disclosures

The authors declare that they have no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Table and Figure Legends

Table 1. Institutional and Provider Characteristics for all cancer programs

Table 2. Barriers Associated with the Capacity to Deliver Quality Psychosocial Care

Q1: Communicates to cancer survivor and family importance of psychosocial needs and care.

Q2: Provides training in patient/provider communication for staff

Q3: Monitors effectiveness of patient/provider communication

Q4: Identifies psychosocial health needs of cancer survivors

Q5: Designs and implements psychosocial plan of care

Q6: Engages and supports cancer survivor in managing their illness and health

Q10: Quality oversight

Figure 1a. Frequencies of barriers reported by respondents (n=1375)

Figure 1b. Frequencies of promoters reported by respondents (n=1170)

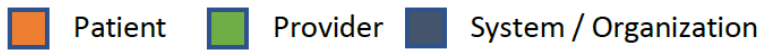
 Patient Provider System / Organization

Table 1. Institutional and Provider Characteristics for all cancer programs

	All	ACAD	CCCP	CCP	NCIP	FSCCP	INCP	VACP
Survey Respondents (%)	2008	357 (17.8)	765 (38.1)	337 (16.8)	454 (22.6)	11 (.5)	82 (4.1)	2 (.1)
Institutional Characteristics								
Cancer Programs	58	10	24	14	6	1	2	1
>30% racial minorities	18	3	8	2	3	0	1	1
Average number of Analytic cases (M(SD))	1836 (1568)	2565 (2237)	1327 (781)	1064 (948)	3890 (1358)	2290	3870 (2304)	746
SW FTE (M(SD))	2.7 (1.56)	3.6 (3.25)	1.8 (1.44)	2.65 (2.94)	7.08 (2.7)	7	5 (4.24)	1
Provider Characteristics								
Medical (MD, NP, PA)	639 (31.8%)	89	174	66	187	6	24	0
Nurses	997 (49.6%)	117	328	144	295	1	46	0
Psychosocial providers (social wkrs, psychologists, psychiatrists)	372 (18.5%)	51	81	45	97	4	12	2

Note. Since there were few cancer programs categorized as FSCC, INCP, VACP, data related to these programs were omitted when making statistical comparisons across types of cancer programs.

Table 2. Barriers Associated with the Capacity to Deliver Quality Psychosocial Care

	Q1	Q2	Q3	Q4	Q5	Q6	Q10
Inadequate Training	-1.411	-0.2367	-0.0678	-0.674	-0.0435	-0.1265	0.0512
No Systemic Process	-.253*	.597***	-.4527***	-.487***	-.401***	-.509***	-.0382**
# of Personnel	-.0238	-.1181	-.0486	-.1053	-.1608	.07678	-.19981*
Inadequate Time	-.083	-.1154	-.2462*	-.0357	.2070*	.3245*	-.2344*
-2 restricted log likelihood	6013.314	6838.334	6876.167	5746.328	6044.850	6844.637	4252.689
ICC	.23	.19	.21	.08	.25	.24	.11

Q1: Communicates to cancer survivor and family importance of psychosocial needs and care.

Q2: Provides training in patient/provider communication for staff

Q3: Monitors effectiveness of patient/provider communication

Q4: Identifies psychosocial health needs of cancer survivors

Q5: Designs and implements psychosocial plan of care

Q6: Engages and supports cancer survivor in managing their illness and health

Q10: Quality oversight

Notes: *** $p < .001$ ** $p < .01$ * $p < .05$

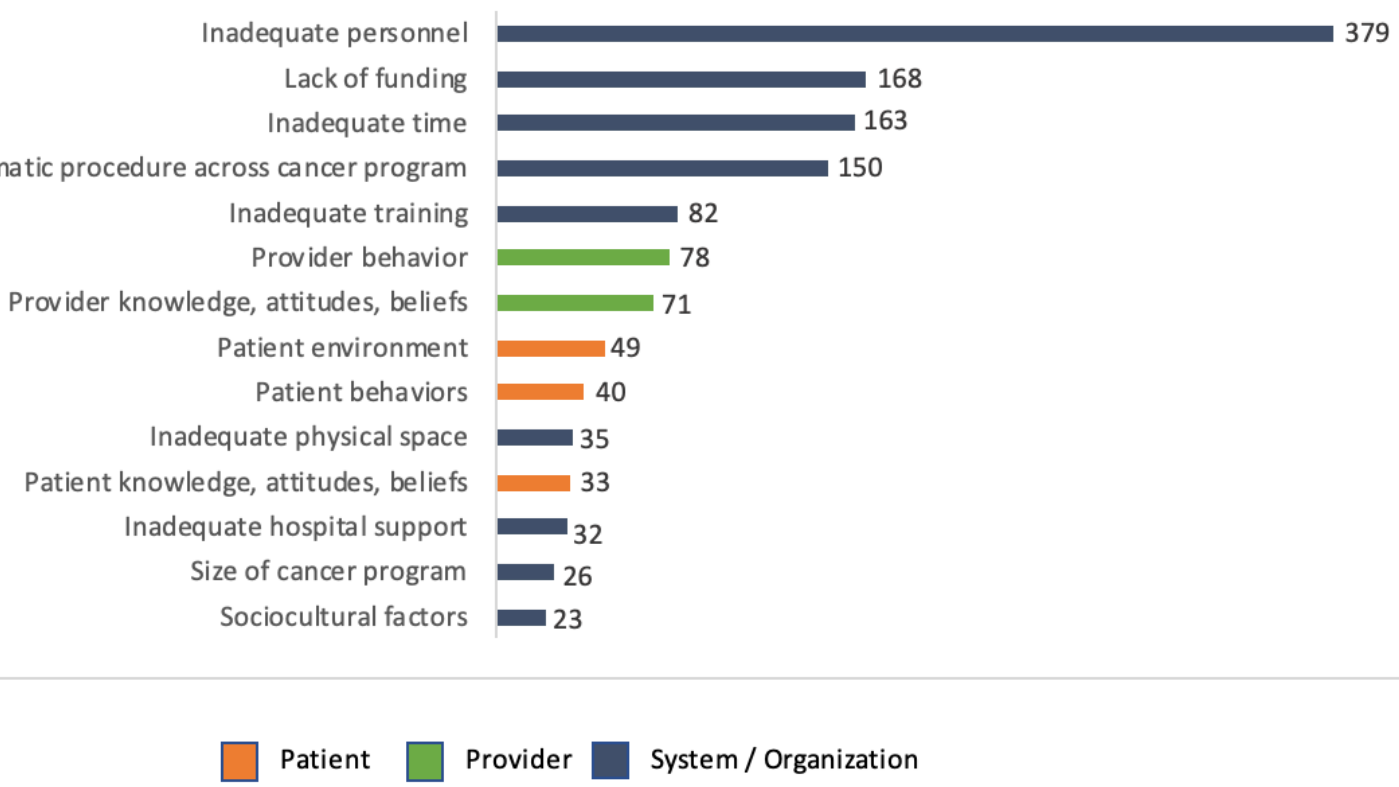


Figure 1a. Frequencies of barriers reported by respondents (n=1375)

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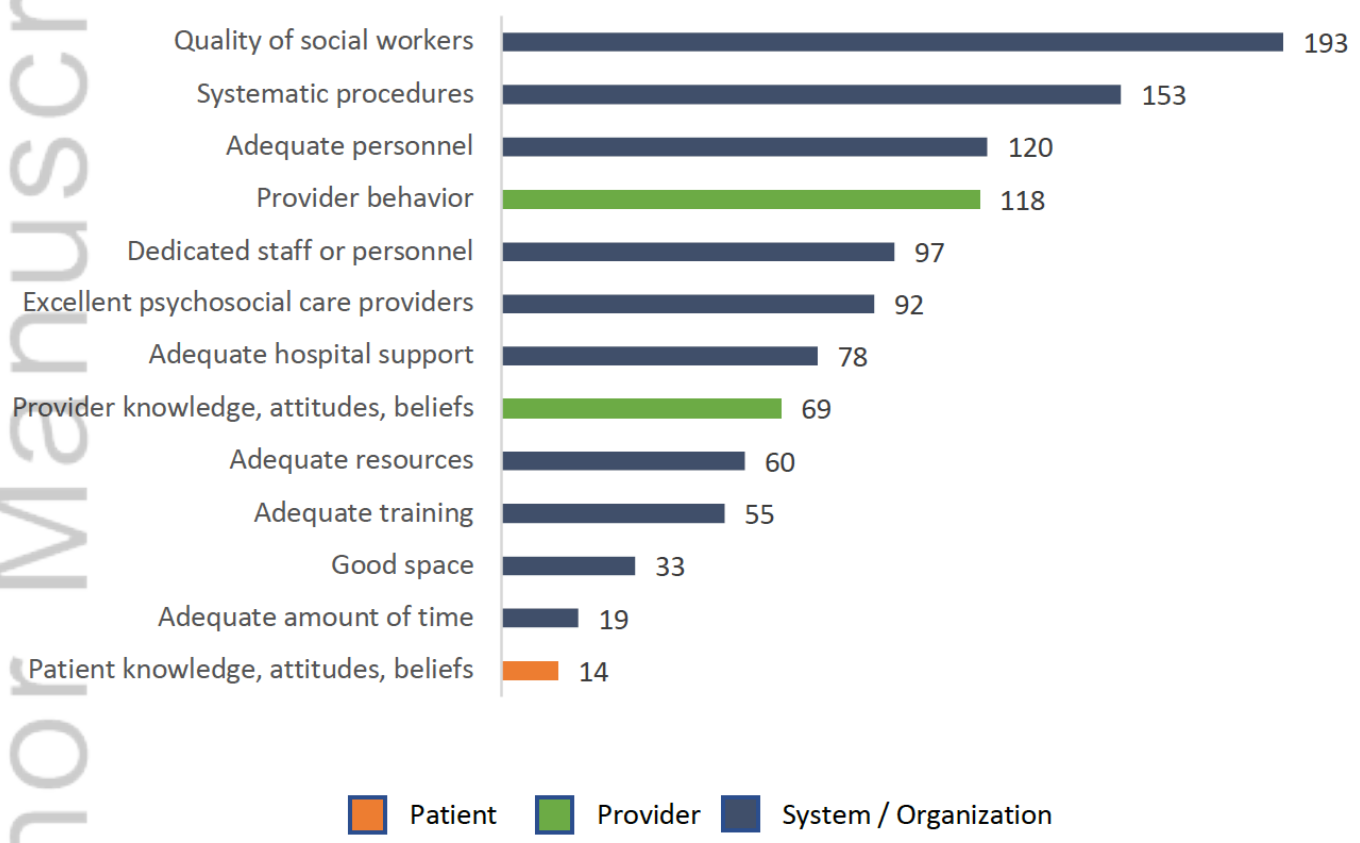


Figure 1b. Frequencies of promoters reported by respondents (n=1170)

PON_5488_PON_20.153.R1_Figure 1b.PNG

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