It is illegal to post this copyrighted PDF on any website. Use of Preventive Health Services in People With Serious Mental Illness: Consumer Perspectives on Barriers and Solutions

Glen L. Xiong, MD^{a,*}; Ana-Maria Iosif, PhD^b; Nickolas H. Culpepper, MD^a; and Robert M. McCarron, DO^a

ABSTRACT

Objective: This study asked 350 consumers with serious mental illness (*DSM-IV*) (who are using community mental health services in Sacramento County, California) for their perspective about barriers and solutions to use of preventive health services.

Methods: Two questions were posed: (1) What do you think keeps you from getting preventive tests? (2) What do you think would help you complete the recommended tests? Participants were interviewed between October 2010 and December 2012. A mixed qualitative and quantitative data analysis method was used to examine participant responses.

Results: Perceived barriers included low priority (n = 64, 20%), doctor (did not order) (n = 55, 17%), finances/insurance barriers (n = 45, 14%), fear (n = 39, 12%), and knowledge about the services (n = 31, 10%). Common solutions included doctor-related interventions (n = 75, 23%), information (n = 61, 19%), insurance coverage (n = 49, 15%), transportation (n = 36, 11%), and use of reminders (n = 28, 9%).

Conclusions: Consumers suggest that interventions may include providing more information and reminding doctors to order the tests and patients to complete the tests.

Prim Care Companion CNS Disord 2017;19(1):16m02042 https://doi.org/10.4088/PCC.16m02042 © Copyright 2017 Physicians Postgraduate Press, Inc.

^aDepartment of Psychiatry & Behavioral Sciences, University of California at Davis, Sacramento ^bDepartment of Public Health Sciences, UC Davis School of Medicine, Davis, California

*Corresponding author: Glen L. Xiong, MD, Department of Psychiatry & Behavioral Sciences, University of California at Davis, 2230 Stockton Blvd, Sacramento, CA (gxiong@ucdavis.edu). Compared to the general population, persons with serious mental illness have reduced life expectancy and more chronic medical comorbidities.¹⁻³ Mortality from preventable medical conditions is the most common cause of death in people with serious mental illness.^{4,5} Underutilization of preventive health services by persons with serious mental illness has been well described in the literature.⁶⁻¹³

Technological innovations such as use of electronic personal health records for persons with serious mental illness were recently examined in a randomized controlled study¹³ and found to significantly increase use of medical services. However, few studies have examined interventions to increase the use of preventive health services in this population. Engagement of consumers in development of interventions is particularly salient and vital in preventive health for serious mental illness.¹⁴ To address this issue, we examined consumer perspectives on barriers and solutions to the use of preventive health services in a sample of people with serious mental illness receiving care at community mental health clinics in Sacramento County, California.

METHODS

Design and Setting

Trained research assistants (N.H.C) interviewed and administered preventive health service questionnaires to participants who were receiving outpatient mental health treatment in 4 mental health clinics in Sacramento County. This study was approved by the institutional review board at the University of California, Davis, and the Sacramento County Health and Human Services Research Committee. Complete details of the study and risk factors for reduced preventive health services use in this cohort have been previously published.¹⁵

Patient Population

We interviewed adults older than age 18 years who have received services in the clinics for more than 3 months and who were able to provide informed consent. For the purpose of this study, the term *serious mental illness* is defined by *DSM-IV* diagnoses of schizophrenia, bipolar disorder, schizoaffective disorder, recurrent major depressive disorder, and borderline personality disorder. Of the 350 participants included in the parent study (interviewed between October 2010 and December 2012), 24 completed all of the cancer and noncancer preventive services they were eligible for and were not included in the current report. The participants had a mean \pm SD age of 46.4 \pm 10.2 years; 75 (23%) had less than high school education, 108 (33%) completed high school or equivalent, and 141 (44%) attended some college; 134 (41%) were male; and 103 (32%) had bipolar, 142 (43.5%) had depressive, 54 (16.5%) had psychotic, and 27 (8%) had other mental disorders.

Study Outcomes

We examined participant responses to 2 open-ended questions: (1) What do you think keeps you from getting preventive tests? (2) What do you think would help you complete the recommended tests?

Xiong et al

Clinical Points

Physicians should discuss barriers to use of preventive health services with their patients with mental illness.

<u>It is illegal to post this copyri</u>

- Barriers to use of preventive health services may include physician factors such as physicians' need to order the tests and also provide sufficient educational information about the tests.
- Physicians should be mindful of nonphysician factors such as patients not placing enough priority on preventive tests and forgetting to follow up on tests.
- Physicians, health system administrators, and policy makers may need to address external systemic factors such as transportation and insurance barriers to using preventive tests.

Table 1. Barriers and Solutions to Use of Preventive Health Services^a

What Do You Think Keeps You From Getting Preventive Tests?		What Do You Think Would Help You Complete the Recommended Tests?	
Reason	Frequency (%)	Reason	Frequency (%)
Low priority	64 (20)	Doctor (to order)	75 (23)
Doctor (did not order)	55 (17)	Information	61 (19)
Finances/insurance	45 (14)	Finances/insurance	49 (15)
Fear	39 (12)	Improved transportation	36 (11)
Knowledge	31 (10)	Reminders	28 (9)
Transportation	26 (8)	Access to primary care	26 (8)
System failure	24 (7)	Reduced wait times	15 (5)
Access to primary care	20 (6)	Others	14 (4)
Others	9 (3)	Motivation	9 (3)
Language barrier	3 (1)	Interpreter	5 (2)

^aTable entries represent number (%) of participants. Up to 2 reasons were

coded for each person, and some participants provided no answer; thus, the percentages do not sum to 100.

Data Analysis

Statistical analyses were performed using SAS version 9.4 (SAS Institute, Carey, North Carolina) to summarize the survey responses as frequencies (percentages). For the open-ended answers, the principal investigator (G.L.X.) and a research assistant (N.H.C.) each developed coding systems to classify the respondent's answers. Some open-ended responses were complex and did not fall into a single category. Therefore, up to 2 codes were used to classify each response. Thirty-five discrepancies (16 for barriers, 19 for solutions) were resolved by a consensus meeting among the investigators. Sixty-three answers were excluded from the analysis of barriers to preventive care: 22 were not relevant, 21 answered "nothing," and 20 did not respond. Similarly, 68 answers were not relevant, 18 answered "nothing," and 17 did not respond.

RESULTS

Ten common categories emerged as barriers to care. Some participants found tests to be (1) *low priority*, responding "procrastination" and "my lifestyle, I am too busy." Individuals in this category also felt that they were unlikely to get sick, noting responses such as "I feel fine." (2) *Doctor (did not order)* was used when a participant responded with statements such as **hted PDF on any website**. Doctors never mentioned it" but also "If the doctor brings it up, I will do it." (3) The *fear* category included statements such as "To be honest, I just don't want to know" and "I am scared and not asking." (4) *System failure* represented a more global barrier in the medical system; examples included "referrals took too long" as well as a frustration with bureaucracy, "I have to go through so much paperwork, and it is so difficult to go through the process." The remaining categories included (5) *finances/insurance*, (6) *transportation*, (7) *knowledge about screening tests*, (8) *access to primary care*, (9) *language barrier*, and (10) *others* (answers that did not fit into any other categories).

Regarding solutions, 10 categories also emerged as main themes among participants. Examples of responses are included after each category. (1) Information: "discussion with the doctor," "having someone go over each test, giving some input about the results, knowing what kinds of questions to ask," and "brochures/information education." (2) Doctor (to order): "doctor telling me." (3) Finances/insurance: "make health care more affordable" and "getting medical coverage." (4) Improved transportation: "If I didn't have to ask somebody to take me all the time. I need a ride, gas money, transportation to the clinic." (5) Reminders: "so many appointments and it's hard to keep track of" and "I can't remember to do the tests." (6) Wait time: "faster appointment times" and "services provided at the clinic." (7) Access to primary care: "have a consistent primary care doctor." (8) Others: answers that did not fit into any other category or were too vague to code such as "shelter, coming to support groups helps with my depression." (9) Motivation: "For the flu shot, I might need another gift card" and "just a matter of setting up the appointment." (10) Interpreter: "easier availability of interpreters."

Table 1 summarizes the coded results of the open-ended responses to questions about barriers to preventive health screening and suggested solutions from the study participants. For barriers, 1 answer was coded for 216 participants and 2 for 50 participants. Low priority (n=64) was the most common reason that participants did not complete tests, followed by doctor (did not order) (n=55) and finances/insurance (n=45).

Regarding potential solutions to improving use of preventive health services use, 2 answers were coded for 60 participants, and 1 answer was coded for the rest of the 198 participants. Participants most frequently cited doctor (to order) (n = 75) as the most useful tool to help them complete their tests, followed by providing information (n = 61) and resolving barrier with finances/insurance (n = 49).

DISCUSSION

This study found that common barriers to use of preventive services included consumers not placing

ordering the test, and insurance reasons. Fear, knowledge, and transportation barriers follow closely as the next set of challenges. As for solutions, over 40% of the participants reported that they will complete the tests when they are ordered or if they get more information about preventive tests (see Table 1). Only 9% of the consumers suggested use of appointment reminders as a solution.

sufficient priority on preventive health, physicians n

In addition to improving health insurance coverage and access to primary care in people with serious mental illness,

Submitted: September 8, 2016; accepted October 17.2016.

Published online: January 5, 2017.

Potential conflicts of interest: None.

Funding/support: This study was in large part supported by a National Alliance for Research on Schizophrenia and Depression (NARSAD) Young Investigator Award from Brain and Behavioral Health Foundation to Dr Xiong.

Role of the sponsor: The sponsors and study partners including Sacramento County Department of Health and Human Services and affiliated clinics had no role in design and conduct of the study. They were not involved in collection. management, analysis, and interpretation of data or in preparation, review, or approval of the manuscript.

Acknowledgments: The authors thank the clinic personnel, nurses, clinicians, psychiatrists, and managers at each of the study sites. They acknowledge Sacramento County Department of Health and Human Services, specifically Bert Bettis; Rod Kennedy; Sandy Damiano, PhD; and Robin Skalsky, LCSW, and Meghan Stanton (Consumer Self Help Center, Sacramento, California) for their leadership and tireless efforts in making this study possible. The acknowledged individuals report no conflicts of interest related to the subject of this article.

REFERENCES

- 1. National Association of State Mental Health Program Directors (NASMHPD) Health Directors Council. Morbidity and mortality in patients with serious mental illness. NASMHPD Web site. www.nasmhpd.org. October 2006.
- 2. Colton CW. Manderscheid RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. Prev Chronic Dis. 2006;3(2):A42.
- 3. Prior P, Hassall C, Cross KW. Causes of death associated with psychiatric illness. J Public Health Med. 1996;18(4):381-389.
- 4. Crump C, Sundquist K, Winkleby MA, et al. Comorbidities and mortality in bipolar disorder: a Swedish national cohort study. JAMA Psychiatry. 2013;70(9):931-939.
- Walker ER, McGee RE, Druss BG. Mortality in 5 mental disorders and global disease burden implications: a systematic review and metaanalysis. JAMA Psychiatry. 2015;72(4):334-341.
- 6. Druss BG, Rosenheck RA. Mental disorders and access to medical care in the United States. Am J Psychiatry. 1998;155(12):1775-1777.
- 7. Druss BG, Bradford DW, Rosenheck RA, et al. Mental disorders and use of cardiovascular procedures after myocardial infarction. JAMA. 2000;283(4):506-511.
- 8. Newcomer JW, Hennekens CH. Severe mental illness and risk of cardiovascular disease. JAMA.

ighted PDF on any website. our study suggests that potential interventions to increase use of preventive health services in people with serious mental illness may include providing more information about preventive health services to consumers and reminding doctors to order the tests. The study results are limited to the sample of patients studied in the particular county mental health system in California, and, therefore, the conclusions may not generalize to other populations. However, the results of this study, based on consumer perspective, may be incorporated into the design of future intervention studies.

2007;298(15):1794-1796.

2006;60(7):600-605.

2006;21(10):1097-1104.

4):40-44.

9. Werneke U, Horn O, Maryon-Davis A, et al.

patients with mental health problems.

severity of mental illness on receipt of

Psychiatr Serv. 2008;59(8):929-932.

screening mammography. J Gen Intern Med.

serious mental illness in Sacramento County.

with serious mental illness: challenges and

solutions. J Clin Psychiatry. 2007;68(suppl

an electronic personal health record for

Psychiatry. 2014;171(3):360-368.

compare? Int J Psychiatry Med.

2015;48(4):279-298.

patients with serious mental illnesses. Am J

from PCOI. JAMA. 2015;314(21):2235-2236.

preventive health screening services use in

integrated behavioral health primary care

J Epidemiol Community Health.

Uptake of screening for breast cancer in

Mental Health Consumer Perspectives

t is illegal to post this copyrighted PDF on any website. 10. Carney CP, Jones LE. The influence of type and 11. Xiong GL, Bermudes RA, Torres SN, et al. Use of cancer-screening services among persons with 12. Druss BG. Improving medical care for persons 13. Druss BG, Ji X, Glick G, et al. Randomized trial of 14. Selby JV, Forsythe L, Sox HC. Stakeholder-drive comparative effectiveness research: an update 15. Xiong GL, Iosif AM, Suo S, et al. Understanding persons with serious mental illness: how does