

# UCSF

## UC San Francisco Previously Published Works

### Title

Roles in and barriers to metabolic screening for people taking antipsychotic medications: A survey of psychiatrists

### Permalink

<https://escholarship.org/uc/item/6xh6w409>

### Journal

Schizophrenia Research, 143(2-3)

### ISSN

0920-9964

### Authors

Parameswaran, SG  
Chang, C  
Swenson, AK  
[et al.](#)

### Publication Date

2013-02-01

### DOI

10.1016/j.schres.2012.08.031

Peer reviewed



Published in final edited form as:

*Schizophr Res.* 2013 February ; 143(0): . doi:10.1016/j.schres.2012.08.031.

## Roles in and barriers to metabolic screening for people taking antipsychotic medications: A survey of psychiatrists

SG Parameswaran<sup>a,b</sup>, C Chang<sup>c,d</sup>, AK Swenson<sup>b</sup>, M Shumway<sup>c</sup>, M Olfson<sup>a</sup>, and CV Mangurian<sup>c</sup>

SG Parameswaran: sgp2115@columbia.edu; C Chang: ccharlenechang@gmail.com; AK Swenson: annakswenson@gmail.com; M Shumway: Martha.Shumway@ucsf.edu; M Olfson: olfsonm@nyspi.columbia.edu; CV Mangurian: Christina.Mangurian@ucsf.edu

<sup>a</sup>New York State Psychiatric Institute, 1051 Riverside Drive, New York, NY 10032

<sup>b</sup>Columbia University College of Physicians & Surgeons, 630 West 168th Street, New York, NY 10032

<sup>c</sup>University of California, San Francisco Department of Psychiatry, 401 Parnassus Avenue, San Francisco, CA 94143

<sup>d</sup>UCSF AIDS Health Project, 1930 Market Street, San Francisco, CA 94102

### Keywords

Antipsychotic agents; schizophrenia; metabolic screening; psychiatry

### Dear Editors

Premature mortality for people with serious mental illness (SMI) is impacted by under-treatment of cardiovascular risk factors and metabolic effects of antipsychotic medications (Daumit et al., 2008; Nasrallah et al., 2006). National guidelines recommend screening and monitoring for metabolic risk factors in patients receiving antipsychotic medications (Association et al., 2004; Parks et al., 2008). However, prior studies demonstrate rates of screening between 10–43% (Buckley et al., 2005; Morrato et al., 2010; Newcomer et al., 2004).

Our study fielded a survey (available upon request) aimed to understand psychiatrists' beliefs about their roles in, and the barriers to, the screening, monitoring and treatment of metabolic risk factors in patients receiving antipsychotic medications, and the characteristics of psychiatrists or their practices influencing differing attitudes. Items characterizing psychiatrists and their practices were adapted from prior national surveys (Arbuckle et al., 2008; Kreyenbuhl et al., 2007; Olfson et al., 2006). Questions were developed based on previously hypothesized roles and barriers (Buckley et al., 2005; Morrato et al., 2010; Newcomer et al., 2004) and discussions with expert researchers. Five-point Likert scales were used to assess agreement with statements about psychiatrists' roles in the screening and

© 2012 Elsevier B.V. All rights reserved.

Corresponding Author: Sharat Parameswaran, MD, 1051 Riverside Drive, Mailbox 85, New York, NY 10032; sgp2115@columbia.edu; phone: (212) 543-5541; FAX: (212) 543-5356.

**Publisher's Disclaimer:** This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

treatment of metabolic risk factors, and whether 26 barriers were significant in their practices.

Between February 2009 and March 2010, a convenience sample of psychiatrists in two urban cities identified based on their affiliation with academic medical centers or local community mental health programs was contacted to anonymously complete a paper or online survey, without incentives. Inclusion criteria for the study were psychiatrists with outpatient practices. The study was approved by institutional review boards at both study locations and was in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki).

Likert scale responses were dichotomized into two groups, those responding “agree” or “strongly agree,” and those responding otherwise. Ordinal logistic regressions were performed on responses to the first three key perceived roles (see Table 1) with the independent variables being provider and patient characteristics.

The response rate was 65% (91/139), and 92% (84/91) met inclusion criteria. The mean age for participants meeting inclusion criteria was 44.4 years old (SD=12.1), with 58% (48/83) of participants being male. The racial/ethnic distribution was 53% (42/80) Caucasian, 28% (22/80) Asian, 9% (7/80) African-American, 6% (5/80) Latino, and 5% (4/80) other.

Ratings for statements about the roles of psychiatrists in screening for and treating metabolic risks are shown in Table 1. Barriers to screening and monitoring which more than two-thirds of participants agreed were significant were severity of psychiatric illness [84% (69/82)], insufficient physician time [87% (71/82)], difficulty arranging referral for medical follow-up [83% (68/82)], insufficient staff or staff time [80% (66/82)], wait times for medical follow-up [82% (67/82)], and difficulty collaborating with physicians providing medical follow-up [67% (55/82)]. Policymakers should consider these barriers as they develop interventions for improving general medical health in this vulnerable population.

Ordinal logistic regression showed that psychiatrists graduating from residency before the 2004 ADA/APA guidelines (OR 4.27, 95% CI=1.62–11.2,  $p=0.003$ ) and psychiatrists with fewer than half of their patients with diagnoses of schizophrenia or bipolar disorder (OR 3.75, 95% CI=1.52–9.25,  $p=0.004$ ) were more likely to agree that monitoring is the role of psychiatrists *only if* patients did not have primary care providers. This may indicate an evolution over time in perceptions about screening and a need for targeted educational interventions for psychiatrists who have already completed training or with less contact with SMI populations. Psychiatrist or psychiatrists’ practice characteristics were not associated with other perceived monitoring roles.

This study supports prior findings that psychiatrists recognize the importance of screening for metabolic risk in patients receiving antipsychotic medications (Newcomer et al., 2004). Additionally, we found that psychiatrists believe their role includes conducting metabolic screening and providing certain interventions *even if* their patients have primary care physicians, but *not* prescribing oral medications for metabolic abnormalities. This gap between screening and treatment is concerning given that one of the top identified barriers was difficulty arranging medical follow-up, and may represent a target for interventions to provide psychiatrists with tools to initiate treatment of metabolic abnormalities.

This study has several limitations. This study used a convenience sample of psychiatrists in metropolitan centers. Differences between responders and non-responders are not known. The sample is not sufficiently large or diverse to assess the role of various work settings, institutional access to primary care, and other contextual factors on psychiatrist role perceptions regarding metabolic screening and monitoring.

This study provides a framework for future assessments of psychiatrists' perceived roles in and barriers to metabolic screening for people with SMI. Further surveys of other stakeholder groups (e.g., primary care providers, consumers) may help to elucidate the reasons for poor metabolic screening rates among persons with SMI and thereby help identify targets for intervention.

## References

- Arbuckle MR, Gameraff MJ, Marcus SC, West JC, Wilk J, Olfson M. Psychiatric opinion and antipsychotic selection in the management of schizophrenia. *Psychiatr Serv.* 2008; 59(5):561–565. [PubMed: 18451017]
- American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists, North American Association for the Study of Obesity. Consensus development conference on antipsychotic drugs and obesity and diabetes. *Diabetes Care.* 2004; 27(2):596–601. [PubMed: 14747245]
- Buckley PF, Miller DD, Singer B, Arena J, Stirewalt EM. Clinicians' recognition of the metabolic adverse effects of antipsychotic medications. *Schizophr Res.* 2005; 79(2–3):281–288. [PubMed: 15964743]
- Daumit GL, Goff DC, Meyer JM, Davis VG, Nasrallah HA, McEvoy JP, Rosenheck R, Davis SM, Hsiao JK, Stroup TS, Lieberman JA. Antipsychotic effects on estimated 10-year coronary heart disease risk in the CATIE schizophrenia study. *Schizophr Res.* 2008; 105(1–3):175–187. [PubMed: 18775645]
- Kreyenbuhl J, Marcus SC, West JC, Wilk J, Olfson M. Adding or switching antipsychotic medications in treatment-refractory schizophrenia. *Psychiatr Serv.* 2007; 58(7):983–990. [PubMed: 17602016]
- Morrato EH, Druss B, Hartung DM, Valuck RJ, Allen R, Campagna E, Newcomer JW. Metabolic testing rates in 3 state Medicaid programs after FDA warnings and ADA/APA recommendations for second-generation antipsychotic drugs. *Arch Gen Psychiatry.* 2010; 67(1):17–24. [PubMed: 20048219]
- Nasrallah HA, Meyer JM, Goff DC, McEvoy JP, Davis SM, Stroup TS, Lieberman JA. Low rates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: data from the CATIE schizophrenia trial sample at baseline. *Schizophr Res.* 2006; 86(1–3):15–22. [PubMed: 16884895]
- Newcomer JW, Nasrallah HA, Loebel AD. The Atypical Antipsychotic Therapy and Metabolic Issues National Survey: practice patterns and knowledge of psychiatrists. *J Clin Psychopharmacol.* 2004; 24(5 Suppl 1):S1–6. [PubMed: 15356414]
- Olfson M, Marcus SC, Wilk J, West JC. Awareness of illness and nonadherence to antipsychotic medications among persons with schizophrenia. *Psychiatr Serv.* 2006; 57(2):205–211. [PubMed: 16452697]
- Parks J, Radke AQ, Mazade NA. Measurement of health status for people with serious mental illness, National Association of State Mental Health Program Directors. 16th technical report. 2008

Table 1

Psychiatrists' perceived roles in performing specific screening and monitoring tasks and in treatment for metabolic dysfunction.

Survey Prompt	Respondents Agreeing <sup>a</sup>			
	% <sup>b</sup>	n <sup>c</sup>	N <sup>d</sup>	95% CI <sup>e</sup>
<b><i>Monitoring metabolic risk factors in patients on antipsychotic medications at risk of causing metabolic dysfunction is the role of:</i></b>				
Primary care providers, not psychiatrists or mental health clinics.	33%	27	81	23–44%
The psychiatrist or mental health clinic, <i>only if</i> patients do not have an established primary care provider.	53%	42	80	42–63%
The psychiatrist or mental health clinic, <i>even if</i> patients have established primary care.	81%	67	83	72–89%
<b><i>If psychiatrists or mental health clinic staff are responsible for monitoring metabolic risk factors, should they be responsible for checking:</i></b>				
BMI	82%	67	82	73–90%
Waist circumference	52%	43	82	42–63%
Blood pressure	77%	63	82	68–86%
Fasting labs	90%	74	82	84–97%
<b><i>If patients are found to have metabolic abnormalities likely associated with treatment with antipsychotic medications, it may be the responsibility of psychiatrists to:</i></b>				
provide patients with education regarding metabolic syndrome and related metabolic risk indicators	80%	66	83	71–88%
refer to primary care providers or other medical follow-up	95%	79	83	91–100%
directly contact patients' primary care or other medical providers	89%	74	83	82–96%
maintain contact with primary care or other medical providers regarding continuing treatment of metabolic risk factors	92%	76	83	86–98%
refer patients to weight loss programs, or other related psychosocial or support group programs	75%	62	83	65–84%
<b><i>Prescribing oral medications to treat any aspect of metabolic dysfunction (e.g., statins, metformin) may, in certain circumstances, be the responsibility of psychiatrists.</i></b>	34%	28	82	24–44%

<sup>a</sup> Respondents Agreeing represents participants responding "agree" or "strongly agree" to each respective survey question;

<sup>b</sup> % denotes percent;

<sup>c</sup> n denotes number agreeing;

<sup>d</sup> N denotes total number of participants;

<sup>e</sup> CI denotes confidence interval.