

Health Screening Dialogues

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ABSTRACT

Nurses can play an important role in community-based health screenings, which are a practical resource to empower people living with mental and substance use disorders to make positive lifestyle changes. The experiences, struggles, and strengths of screening participants provides insights for nurses to engage people in health and wellness dialogues. [*Journal of Psychosocial Nursing and Mental Health Services*, 51(12), 22-28.]

Many individuals with major mental disorders live with medical comorbidities that contribute to poor quality of life and shortened life span (Parks, Svendsen, Singer, Foti, & Mauer, 2006). We conducted a study to screen for, identify, and document co-occurring physical health conditions, health risk factors, and use of health care services among individuals served by the public mental health system. Through a series of health screenings, we sought to better understand the level of health risks among members of community mental health programs in four states by screening for a number of common medical comorbidities including obesity, hypertension, diabetes, high cholesterol, substance use, nicotine dependence, and heart disease. The purpose of this article is to share our observations and experiences during dialogues with health screening participants at the various screening stations that comprised the event. Individuals who staffed the screening stations reflect herein on the experiences, reactions, and dialogues they had with participants to better understand how to help and support their steps toward healthier lifestyles and behaviors.

LITERATURE REVIEW

Community-based health screenings are useful for stimulating awareness of one's health, health issues, and risk fac-

tors; increasing awareness of community services and needs (Brown & Khan, 1998); enhancing awareness and education regarding risk reduction and preventive behaviors; and providing information to participants that is relevant and culturally competent (Blumenthal & Kahn, 1979; Carter, 1991). Individuals participate in health screenings in an attempt to directly access health information relevant to their own needs (Mess et al., 2000) and potentially carry out subsequent self-directed interventions (Blumenthal & Kahn, 1979). Screening events not only provide attendees with general health information but also focus on information that is specific to their own personal health risks and conditions (Carter, 1991). Information gained in health screening events can positively affect participants' health knowledge. Other information provided generally details illness prevention and healthy living strategies, treatment options, and programs that can assist individuals in health promotion.

The Health Beliefs Model (Rosenstock, Strecher, & Becker, 1988) posits that both health risks and protective behaviors are affected by multiple factors, including overall health beliefs, attitudes regarding vulnerability to illnesses, and personal perspectives about illness course and consequences. Participation in health screening events is believed to positively affect health beliefs, including feelings of control over one's health and lifestyle.

We conceptualized that our health screening events would provide a vehicle for initiating dialogues with participants about their health beliefs, health risks, and lifestyle. We also hypothesized that new health and wellness strategies could be stimulated by the screening events, as participants examined their personal health beliefs and attitudes and how these might affect their health status. Therefore, we structured our health fair to allow for dialogue at each station, along with a specialized peer support station at the end of the screening process, to help participants consider their beliefs, test results, and improve their ability to take control of their health and decide on the next steps. To further increase participants' comfort levels, we recruited peers from each agency who we trained and paid to work as health fair greeters and to guide participants from one station to the next. This article provides selected anecdotes and conversations that occurred at each station to illustrate the range of participants' health beliefs and attitudes and how these affected what they believed was possible for them in terms of health behavior change.

METHOD

Participants

A total of 457 health screening participants were recruited from peer-run and non-peer-run mental health programs and attended health screenings held in four states (New Jersey, Illinois, Maryland, and Georgia) from April 2011 through June 2012. The states were selected based on the fact that the university research center was conducting separate individual research studies in specific local areas of those states. Thus, the health screenings were held prior to initiating any research to char-

acterize the general health condition of people with serious mental illnesses in those local areas of each state. We approached mental health programs in the local areas we had targeted in each of the four states by telephone and e-mail and asked them for their participation. All of the programs contacted in each state agreed to participate. We convened teleconferences with program representatives for 3 months prior to each health fair, during which we discussed plans for advertising the screening, recruiting participants, and logistical matters such as where to hold the event, scheduling and transportation for participants, and how to ship and safely store testing materials and supplies.

This screening study received human subjects approval from the University of Illinois at Chicago Institutional Review Board (IRB) and the IRBs of the collaborating agencies (Cook et al., 2013). All participants were members of mental health treatment, housing, employment, and/or peer support programs. Requirements for participation were age 18 or older, ability to provide informed consent, and ability to participate in the health fair screening stations using spoken English.

Approximately half (49%) of the participants were women, with a mean age of 46. Consistent with the manner in which the U.S. Census Bureau classifies race and ethnicity, we queried participants about each of these classifications separately. Thus, we first asked them whether they considered themselves to be Hispanic or Latino. We next asked them what racial group they belonged to (e.g., Caucasian, African American, Asian/Pacific Islander). Those who answered the first question affirmatively went on to classify their race as they saw fit. Seven percent said they were Hispanic/Latino. Regarding race, 49% identified themselves as White/Caucasian, 39% as Black/African American, 4% as multi-racial, 2% as Asian/Pacific Islander, and the remainder as Other. A fifth (20%) had less than a high school education, 31% had a high school diploma or GED, and 49% had some college or a post-secondary degree.

Forty percent were parents, and 8% were currently married or in a cohabiting relationship. The large majority received their health insurance through Medicaid and/or Medicare (78%), whereas relatively few had private coverage (10%), veteran's insurance (2%), or some other form of health insurance (5%). Fourteen percent reported having no health insurance coverage. When asked to share their psychiatric diagnosis, 41% said they had been told that they had schizophrenia, 23% bipolar disorder, 24% depression, 4% anxiety disorder, 1% personality disorder, and 7% some other disorder.

Design

The authors, who represent the university research center and the peer-operated program, designed the health fair collaboratively. Participants moved through a series of 11 stations staffed by members of the health screening team. All individuals who administered health tests or collected research data had to have completed IRB training on federally mandated protections and safeguards of human subjects. All health fair participants were informed of these protections and safeguards and provided written informed consent to indicate that they had received and understood this information. The following is a description of each of the stations.

Welcome and Check-In Station

At Station One, participants checked in, were given information and asked to provide informed consent, and were administered a pre-event survey. This location also provided each participant with a "health passport," a document they would carry with them throughout the screening so their test results could be recorded and they could then take them home and share with others if they chose. The purpose of the passport was to provide individuals with their screening values (e.g., weight, blood pressure) for both personal management and for sharing with their health care providers. At each of the next seven stations, information was gathered from participants or through a screening activity,

and the test results were given to participants both verbally and on their health passports. Each station also provided informational handouts.

Station for Body Mass Index and Waist Circumference

At Station Two, height, weight, and calculated body mass index (BMI) were determined, as well as waist circumference. These measures are important indicators of obesity and indicate possible metabolic syndrome, a risk factor for coronary heart disease, stroke, and type II diabetes (National Heart, Lung, and Blood Institute [NHLBI], 1998).

Stations for Cholesterol and Blood Sugar

Stations Three and Four were located together, as both tests required small droplets of blood from participants. This allowed blood to be collected from a single finger stick. Station Three is where the cholesterol levels were taken with the Alere Cholestech LDX[®] system using a finger stick blood sample. At Station Four, glycolated hemoglobin (A1C) was measured to identify participant blood sugar level average, using the Bayer A1Cnow[®] system.

Blood Pressure Station

Blood pressure was taken at Station Five using a blood pressure cuff.

Substance Use Stations

At Station Six, participants were screened for substance use with the Alcohol Use Disorders Identification Test (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998) and the Drug Abuse Screening Test (Skinner, 1982). Nicotine dependence was assessed at Station Seven using the Fagerström Test for Nicotine Dependence (Heatherton, Kozlowski, Frecker, & Fagerström, 1991).

Station Assessing Risk for Heart Attack

At Station Eight, participants were shown their calculated risk of a heart attack in the next 10 years, using the computerized Framingham Coronary Risk for Heart Attack website (Wilson et al., 1998). Time was taken at this station to allow individuals to observe the results

of “what if” calculations that showed the effect of changing one of the algorithm values (e.g., quitting smoking) on reducing participants’ risk.

Station for Peer Support and Check Out

Station Nine was the “peer support” station where peers trained in interpreting health risk values and providing peer support reviewed results with participants and answered their questions. Staff at this station then highlighted potential strategies for addressing health risks outlined on a wellness handout associated with the health passport. Station Ten was designed to allow the data recorded on an individual’s health passport to be entered into the screening project computer database. While this was occurring, participants were asked to complete a post-event survey. Station Eleven, the final station prior to exiting, served as the checkout, where participants received their health passport, a gift card to thank them for their time, and a gift bag filled with wellness products and information.

RESULTS

The experiences, challenges, and strengths shared by screening participants are presented.

Desires and Struggles

At Station Two, the BMI station, staff had difficulty calculating waist circumference because the tape measure was not long enough. During the first two health fairs, it was sometimes necessary to have participants help, as additional inches had to be added to the 60-inch measuring tape. One young woman at this station said she understood that 60 inches was not a good number, adding that she did not need to know the exact width of her waist. She expressed the desire to learn how to reduce her waist size to 60 inches and then decrease the measurement from that point. She said that she struggled with being able to make healthy changes in her diet while also maintaining her active social life, which centered on eating fast food and consuming drinks with little nutritional value (e.g., soda).

Getting on the scale was one of the most difficult tasks for the majority of participants. Staff spent time talking with participants first, to increase their comfort level with stepping on the scale, which many did with reluctance. Several participants had emotional reactions to learning their weight, expressing difficulty with connecting the number on the scale with their own health. One staff member shared her own personal experience of how she had reduced her weight from the morbidly obese to the obese range by taking one step at a time, such as reducing intake of sugary snacks, or replacing soda with water. Many participants were skeptical that they could make changes in their diets that would have a positive impact on their overall health, citing different factors such as financial and time constraints, or unwillingness to give up foods they found comforting.

Some individuals were unable to be measured by the BMI chart placed on the wall of the station. Either they were too short or too tall, or their BMI was too high to be calculated on the chart, which went up to a BMI of 54 (i.e., average healthy BMI ranges between 18.5 and 24.9 [Centers for Disease Control and Prevention, 2011]). Often, participants did not know where they fell on the chart, and learning their BMI value was disturbing. They would say things such as, “I didn’t know I was that bad,” or “I didn’t realize where I was.” Sometimes individuals would talk about how they had tried to lose weight but had given up. Station staff shared their own personal struggles with weight and how weight loss through regular exercise and portion control is possible, which reassured participants that it could be done. A few individuals expressed reluctance or embarrassment about going to the gym; therefore, staff suggested low-cost ways they could increase their physical activity, such as daily walking.

Awareness of Personal Risks

At Stations Three and Four, the nurses who staffed the hemoglobin A1C (HA1C) and cholesterol test stations spent time discussing test results and an-

swering questions. One woman, in her late 20s, was surprised that, although her total cholesterol was normal, her HA1C and BMI readings placed her in the pre-diabetes category. She stated that her HA1C test result was a “wake-up call” and that she was too young to become diabetic. She reported that her mother and several other close relatives had type II diabetes and she was therefore concerned about learning that she was pre-diabetic. However, she also said she had a diet high in processed foods and refined sugars and a sedentary lifestyle. She discussed with health screening staff a plan to make an appointment with her primary care physician to follow up on her test results. Other potential lifestyle modifications were discussed, including diet and exercise. She also asked for nutrition advice, so information was shared on portion control and adding more fresh fruits, vegetables, and whole grains into her diet. She was a regular soda drinker and said that everyone who lives in her area loves soda. Station staff discussed healthier beverage options including water, seltzer, and unsweetened iced tea, and also discussed the importance of exercise for keeping glucose levels under control. She said she was going to try to add more walking to her daily routine, and staff recommended that she begin slowly with 10 minutes and then gradually work her way up to 30 minutes of exercise per day.

A man in his early 40s stated that he wanted to take part in the health screening because it had been a couple of years since he had had any blood work done. He indicated that he had a “healthy BMI” and exercised regularly, but did not make good food choices on a daily basis. His blood pressure and HA1C results were within normal range, but his total cholesterol was high and his high-density lipoprotein (HDL) (“good cholesterol”) levels were very low. The nurse pointed out that his current cholesterol level, in combination with his heavy smoking, placed him at risk for heart disease. He asked for some suggestions. The nurse reviewed some of the written materials provided at the station and discussed adding fish to his diet, as

well as nuts and avocados. Instead of frying foods and cooking with butter, he reported that he planned on trying to cook with olive oil or small amounts of other vegetable oils and would eat fewer processed meats (e.g., bologna, ham, bacon). He stated that he had some knowledge about cholesterol, but appreciated learning more about HDL and low-density lipoprotein levels. He planned to follow up with a physician to determine his need for medication or lifestyle modifications.

Many of the participants whose HAIC results placed them in the pre-diabetic and diabetic ranges reported drinking soda and fruit juice as their main beverage each day. Many people were unfamiliar with the HAIC test and were interested to learn of the existence of a test that could estimate their level of blood sugar control over a 2- to 3-month period. Some expressed the intention of asking for this test from their health care providers in the future.

Lifestyle Habits Can Help Manage Blood Pressure

The reactions of many participants to the blood pressure cuff at Station Five suggested they had some awareness of their typical readings and reasons why these might be high. One participant said, "It's going to be high, it always is." Another warned, "It's high; I forgot to take my medicine this morning." Others commented, "I'm stressed," or "I had a lot of salt today." Participants offered many reasons for their high blood pressure, but not much in the way of strategies for corrective action. Staff found it gratifying to be able to provide information and to help individuals understand that medication is a tool, but is never intended to be the only tool to improve the problem of high blood pressure. Participants were often unaware that lifestyle changes, not just medication changes, are effective in preventing further damage to the body and related lifelong complications.

Honesty

At Station Six, individuals were willing to be honest about their drinking and

drug use because they were interested in learning whether their current level of use put them at risk for substance abuse or dependence. Staff at this station assured participants that their screening results were private by shredding their questionnaires after their risk levels were recorded in their health passports. Many people drank moderately, but some drank as much as a six-pack of beer or a fifth of liquor per day. Others reported smoking marijuana or snorting cocaine. They were surprised to learn about the concept of risk reduction—they did not have to go "cold turkey" and abstain completely from drugs and drinking to gain health benefits. They learned about research showing they could enhance their health just by reducing the amount of drugs or alcohol they consumed each day. Others were interested to learn that treatment for substance use problems has been shown by research to be effective, and that new medications are available to reduce cravings while individuals are trying to quit or reduce their use. One man thanked staff for not lecturing him or trying to make him feel bad for drinking. A woman said she was going to attend Alcoholics Anonymous.

The Benefits of Quitting

At Station Seven, where nicotine dependence was assessed, several participants indicated that they were former smokers. They revealed they had successfully quit "cold turkey" for various reasons, including declining health and pregnancy. One man shared that he had moved his smoking outside the house when his wife became pregnant. While he weathered outdoor smoking during the pregnancy, he later tired of going outside to keep the house smoke-free for his infant. Others used ongoing nicotine replacement to avoid smoking. Two people indicated that they used nicotine patches supplied by a state Medicaid program, but that monthly coverage was for a 4-week supply; therefore, they smoked on the remaining days of each month.

Surprise and Intrigue: Heart Health

Station Eight focused on completion of a computerized application of the

Framingham Heart Health Risk Indicator (Wilson et al., 1998). This computerized application considers the effect of multiple health indicators in estimating an individual's risk for heart attack over the next 10 years, based on his or her sex and age. When participants visited this station, they were interested in how different health and personal factors affected heart attack. Although most participants knew that heart attack risks increase as people age, few were aware that this occurs differently for men and women. Participants were intrigued at how the computer program used their screening results (e.g., triglyceride level, blood pressure) to calculate their heart health. One of the most frequent comments was that they liked using the computer application because it showed them how different factors worked together to influence their heart attack risk. For example, one man who was a long-time smoker knew about respiratory health and lung cancer risks, but did not connect smoking to heart health risks. Participants also learned how better management of health conditions affected heart health. One woman had been living with diabetes for several years, but was managing it well with diet and medication. As a result, her HAIC value was in the normal range. Staff showed her how her heart health would look if she was not managing her diabetes by plugging in an elevated HAIC value. She expressed surprise at how much her heart attack risk would rise with uncontrolled blood sugar. She also felt proud of being able to use medications and alter eating habits to control her diabetes, and said she was now more determined than ever to stick to these good practices.

Peer Support for Health and Wellness

At Station Nine, peers who had been trained to provide support for health and wellness offered additional information from the American Heart Association and other organizations. Participants received help understanding their test results and processing the new information they had received at each station. Many shared stories about struggles with

their weight. One individual discussed regular walking as an effective method for weight control. Another reported going regularly to a gym, adding that this was a likely explanation for his normal blood pressure and BMI readings. Many stated they were unaware that they were in the pre-diabetes or diabetes range, as indicated by their HA1C test. A handout with sources of free health care and further testing was provided as follow up, and staff at the station made an effort to talk about what participants could do in the immediate future, using a handout that cross-walked “next steps” for different health risks. For example, participants with high triglycerides were encouraged to eat foods rich in omega-3 fatty acids such as fish, walnuts, and dark leafy green vegetables. Those with high nicotine dependence were informed about new medications for smoking cessation and how to discuss these with their physicians. Participants interested in reducing “bad” cholesterol were advised to eat more fruits, vegetables, fish, and nuts and limit fatty meats, egg yolks, and whole milk products.

In addition to providing information, peer supporters discussed participants’ readiness for change to empower and encourage individuals, no matter what their planned course of action or inaction. One individual, whose screening indicated he was in the pre-diabetes range, said he was nervous and unsure about what follow-up steps he could take. Staff encouraged him to follow up with his health care provider, gave him a packet of information, and discussed personal wellness and prevention steps, including healthy eating, what healthy eating means, and how to exercise on a limited budget. Some individuals showed a lack of knowledge about healthy food choices, even those who considered themselves to be “healthy eaters.” When one woman was asked what she meant by healthy eating, she explained that she drank three large fruit smoothies a day, not realizing that these smoothies alone could total more than half of her recommended daily calorie intake. Staff complemented her efforts to improve her diet, and offered educa-

tion regarding smoothies and helped her explore healthy alternatives.

DISCUSSION

Dialogues between health fair participants and staff at each station revealed that the participants had a range of beliefs and perceptions about their health and how it was influenced by their overall lifestyles and individual health behaviors. Many participants expressed surprise when informed of their high levels of health risks, and this was sometimes accompanied by feelings of concern about their ability to make needed changes. Participants were unaware that a common thread to maintaining health and wellness is through fine-tuning strategies such as healthy eating, portion control, physical activity, adequate sleep, and regular medical check-ups. Many individuals reported concern about their HA1C ratings, because their parents, grandparents, or siblings had diabetes, yet they had not thought to ask their physicians to perform such a test. The simplicity of the test we used was beneficial because it allowed participants to see within 5 minutes what their average blood sugar had been for the past 90 days. We were able to show them the number value, provide education on what is considered a normal range, and provide them the values in their health

passport along with support and education so they could connect with their health care providers or supporters.

At the same time, we were impressed at the substantial efforts already being made by some participants to improve their health. Many smokers, for example, had cut back on the number of cigarettes they smoked each day, even though they demonstrated high levels of nicotine dependence. It was not unusual for long-time smokers to report cutting back to 5 or 6 cigarettes per day, sometimes aided by the considerable expense associated with smoking incurred by individuals on low incomes. Similarly, many individuals had been abstinent from drugs and alcohol for a number of years and expressed pride in their ability to maintain their sobriety despite a severe addiction. Still others described efforts to be more physically active, eat healthier, drink more water, develop restful sleep habits, and get regular check-ups. Screening staff drew on these healthy behaviors to provide encouragement to participants who expressed dismay when they learned about health risks of which they had previously been unaware.

We have anecdotal evidence from each of the fairs that some participants were motivated to become more active based on their test results along with the information and support we provided.

KEYPOINTS

Swarbrick, M.A., Cook, J., Razzano, L., Yudof, J., Cohn, J., Fitzgerald, C.,...Yost, C. (2013). **Health Screening Dialogues.** *Journal of Psychosocial Nursing and Mental Health Services*, 51(12), 22-28.

1. Health screenings were implemented as a strategy to address the health disparity facing individuals with major mental disorders living with medical comorbidities that contribute to poor quality of life and shortened life span.
2. Health screenings were shown to be a viable strategy to empower members of community mental health programs to explore health risks for obesity, hypertension, diabetes, high cholesterol, substance use, nicotine dependence, and heart disease, and wellness strategies to improve health status.
3. Peer supporters were able to engage participants in health dialogues to help empower them in their steps toward healthier lifestyles and behaviors.

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Many participants brought their health passports to appointments with their case managers and agency physicians to share information about their health risks as well as celebrate test results that were positive. Other participants expressed an interest in learning how to conduct their own health screening at their program in the future. They also were intrigued by their interactions with the peers who staffed the health fair. For some, this was their first exposure to peer supporters and they were inspired to think that such a role might be possible for them with the right training and opportunities to reach out to other peers.

NURSING IMPLICATIONS

Psychosocial-mental health nurses play an important role in community-based health screenings. Nurses should staff the blood pressure and blood glucose stations and be prepared to provide health education resources and support. It is critical for nurses to be sensitive to the struggles and challenges people living with mental and substance use disorders face as they tackle challenging habits and routines and co-occurring medical conditions. Nurses should encourage individuals they serve to access health screenings to obtain baseline information on health status to monitor risk factors or learn to self-monitor.

CONCLUSION

Through the process of conducting health fairs, we identified an efficient and effective way to increase individuals' awareness of their health status, while also offering them knowledge and support for health behavior change. We confirmed what has been showed in past studies (Citrome, Blonde, & Damatarca, 2005; Parks et al., 2006; Toalson, Ahmed, Hardy, & Kabinoff, 2004)—that this group frequently shows the markers for metabolic syndrome, placing them at significant health risk. Although we have been conducting similar health screenings for several years, we continue to be surprised by the degree to which this group falls outside of the normal range on many measures of risk. We

also remain impressed by the substantial efforts, courage, and commitment of many participants who have successfully made positive lifestyle changes and those who were open to further health dialogues. This indicates the potential of this group to achieve a better quality of life and longer life span with the right information, tools, and support.

REFERENCES

- Blumenthal, D.S., & Kahn, H.S. (1979). Planning a community health fair. *Public Health Reports, 94*, 156-161.
- Brown, C.M., & Khan, Z.M. (1998). A survey of African Americans at a community health fair. *Journal of Health Care for the Poor and Underserved, 9*, 357-366.
- Bush, K., Kivlahan, D.R., McDonell, M.S., Fihn, S.D., & Bradley, K.A. (1998). The AUDIT alcohol consumption questions (AUDIT-C): An effective brief screening test for problem drinking. *Archives of Internal Medicine, 158*, 1789-1795.
- Carter, K.F. (1991). The health fair as an effective health promotion strategy. *American Association of Occupational Health Nurses Journal, 39*, 513-516.
- Centers for Disease Control and Prevention. (2011). *Body mass index*. Retrieved from <http://www.cdc.gov/healthyweight/assessing/bmi>
- Citrome, L., Blonde, L., & Damatarca, C. (2005). Metabolic issues in patients with severe mental illness. *Southern Medical Journal, 98*, 714-719.
- Cook, J.A., Razzano, L., Grey, D., Swarbrick, M., Jonikas, J., & Burke, L. (2013). *Health screenings: A strategy to empower individuals served by the public mental health system*. Manuscript submitted for publication.
- Heatherton, T.F., Kozlowski, L.T., Frecker, R.C., & Fagerström, K.O. (1991). The Fagerström Test for Nicotine Dependence: A revision of the Fagerström Tolerance Questionnaire. *British Journal of Addiction, 86*, 1119-1127.
- Mess, S.E., Reese, P.P., Della Lana, D.F., Walley, A.Y., Ives, E.P., & Lee, M.C. (2000). Older, hypertensive, and hypercholesterolemic fairgoers visit more booths and differ in their health concerns at a community health fair. *Journal of Community Health, 25*, 315-329.
- National Heart, Lung, and Blood Institute. (1998). *Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: The evidence report*. Retrieved from http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf
- Parks, J., Svendsen, D., Singer, P., Foti, M.E., & Mauer, B. (2006). *Morbidity and mortality in people with serious mental illness*. Retrieved from <http://nasmdarchive.aphsa.org/NASMHPD%20Morbidity%20and%20Mortality%20Report.pdf>
- Rosenstock, I.M., Strecher, V.J., & Becker, M.H. (1988). Social learning theory and the health belief model. *Health Education Quarterly, 15*, 175-183.

- Skinner, H.A. (1982). The drug abuse screening test. *Addictive Behaviors, 7*, 363-371.
- Toalson, P., Ahmed, S., Hardy, T., & Kabinoff, G. (2004). The metabolic syndrome in patients with severe mental illnesses. *Primary Care Companion to the Journal of Clinical Psychiatry, 6*, 152-158.
- Wilson, P.W., D'Agostino, R.B., Levy, D., Belanger, A.M., Silbershatz, H., & Kannel, W.B. (1998). Prediction of coronary heart disease using risk factor categories. *Circulation, 97*, 1837-1847.

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