

Mental Health First Aid

Mental Health First Aid is an adult public education program designed to improve participants' knowledge and modify their attitudes and perceptions about mental health and related issues, including how to respond to individuals who are experiencing one or more acute mental health crises (i.e., suicidal thoughts and/or behavior, acute stress reaction, panic attacks, and/or acute psychotic behavior) or are in the early stages of one or more chronic mental health problems (i.e., depressive, anxiety, and/or psychotic disorders, which may occur with substance abuse).

The intervention is delivered by a trained, certified instructor through an interactive 12-hour course, which can be completed in two 6-hour sessions or four 3-hour sessions. The course introduces participants to risk factors, warning signs, and symptoms for a range of mental health problems, including comorbidity with substance use disorders; builds participants' understanding of the impact and prevalence of mental health problems; and provides an overview of common support and treatment resources for those with a mental health problem. Participants also are taught a five-step action plan, known as ALGEE, for use when providing Mental Health First Aid to an individual in crisis:

- A--Assess for risk of suicide or harm
- L--Listen nonjudgmentally
- G--Give reassurance and information
- E--Encourage appropriate professional help
- E--Encourage self-help and other support strategies

In addition, the course helps participants to not only gain confidence in their capacity to approach and offer assistance to others, but also to improve their personal mental health. After completing the course and passing an examination, participants are certified for 3 years as a Mental Health First Aider.

In the studies reviewed for this summary, Mental Health First Aid was delivered as a 9-hour course, through three weekly sessions of 3 hours each. Participants were recruited from community and workplace settings in Australia or were members of the general public who responded to recruitment efforts. Some of the participants (7%-60% across the three studies reviewed) had experienced mental health problems.

Descriptive Information

Areas of Interest	Nental health promotion				
Outcomes	 Review Date: May 2012 1: Recognition of schizophrenia and depression symptoms 2: Knowledge of mental health support and treatment resources 3: Attitudes about social distance from individuals with mental health problems 4: Confidence in providing help, and provision of help, to an individual with mental health problems 5: Mental health 				
Outcome Categories	Mental health Social functioning				
Ages	18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)				
Genders	Male Female				
Races/Ethnicities	Non-U.S. population				
Settings	Workplace Other community settings				

Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Mental Health First Aid was developed in 2001 at the Australian National University. The program was first used in the United States in 2007, and since then, the program has trained over 1,500 instructors in 45 States, the District of Columbia, and Puerto Rico. These instructors have taught the course to more than 38,000 people in a variety of communities. The program has been implemented internationally in Australia, Cambodia, China, England, Finland, Hong Kong, Ireland, Japan, Nepal, New Zealand, Scotland, Singapore, South Africa, Sweden, Thailand, and Wales.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: No Evaluated in comparative effectiveness research studies: No
Adaptations	Mental Health First Aid has been adapted for youth participants (i.e., those under age 18), using age- appropriate examples and format. The program has been translated into Vietnamese for use in Vietnamese communities in Australia.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	Universal Selective Indicated

Quality of Research

Review Date: May 2012

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Kitchener, B. A., & Jorm, A. F. (2002). Mental Health First Aid training for the public: Evaluation of effects knowledge, attitudes and helping behavior. BMC Psychiatry, 2(10), 1-6.

Study 2

Kitchener, B. A., & Jorm, A. F. (2004). Mental Health First Aid training in a workplace setting: A randomized controlled trial. BMC Psychiatry, 4(23), 1-8.

Study 3

Jorm, A. F., Kitchener, B. A., O'Kearney, R., & Dear, K. (2004). Mental Health First Aid training of the public in a rural area: A cluster randomized trial. BMC Psychiatry, 4(33), 1-9.

Supplementary Materials

Overview of intervention fidelity

Outcomes

Outcome 1: Recognition of schizophrenia and depression symptoms				
Description of Measures	Recognition of schizophrenia and depression symptoms was assessed using vignettes and items from the National Survey of Mental Health Literacy, a self-completed survey. Participants were presented with a vignette of a person who had major depression ("Mary") and/or a vignette of a person who had schizophrenia ("John"). After reading the vignette, participants were asked the following open-ended question: "From the information given, what, if anything is wrong with Mary/John?" The percentage of participants who correctly identified the disorder described was calculated on the basis of the responses.			
Key Findings	A study was conducted with members of the public who responded to recruitment information distributed within a community in Australia to participate in Mental Health First Aid. All participants received the intervention. Participants were randomly assigned to receive the schizophrenia vignette or the depression vignette, and the same vignette was presented to each participant at three			

Quality of Research Rating	2.7 (0.0-4.0 scale)
Study Designs	Experimental, Preexperimental
Studies Measuring Outcome	Study 1, Study 3
	positiest (follow-up). Combined data from both vignette groups indicated that over time, there was an increase in the percentage of participants who correctly recognized symptoms of schizophrenia or depression (p < .001). Data from the schizophrenia vignette group indicated that over time, there was an increase in the percentage of participants who correctly recognized symptoms of schizophrenia (p < .001). Although data from the depression vignette group indicated that over time, there was an increase in the percentage of participants who correctly recognized symptoms of depression, these findings were not statistically significant.
	assessment points: before (pretest) and after (posttest) the intervention and 6 months after the posttest (follow-up). Combined data from both vignette groups indicated that over time, there was

Outcome 2: Knowledge of mental health support and treatment resources

Description of Measures

Knowledge of mental health support and treatment resources was assessed using vignettes and items from the National Survey of Mental Health Literacy, a self-completed survey. Participants were presented with a vignette of a person who had major depression ("Mary") and/or a vignette of a person who had schizophrenia ("John"). Participants were then given a list of people, treatments, and actions that the person described in the vignette might use as a resource. Using a response of "helpful," "harmful," or "neither," participants rated each item in the list (e.g., "a typical GP [general practitioner] or family doctor"; "a chemist or pharmacist"; "a psychiatrist"; "Mary/John tries to deal with her/his problem on her/his own"; "pain relievers such as aspirin, codeine or panadol"; "antidepressants"; "courses on relaxation, stress management, meditation or yoga"; "a special diet or avoiding certain foods"). To assess this outcome, a scale was created showing the extent of the participant's knowledge of which support and treatment resources were helpful, as agreed on by health professionals. Six of the list items were classified as helpful for schizophrenia, and participants received a score ranging from 0 to 6, depending on the number of items correctly classified; five of the list items were classified as helpful for depression, and participants received a score ranging from 0 to 5, depending on the number of items correctly classified. Because of the difference in the total number of helpful items (i.e., 6 vs. 5), participants' scores were converted to percentages.

Key Findings

A study was conducted with members of the public who responded to recruitment information distributed within a community in Australia to participate in Mental Health First Aid. All participants received the intervention. Participants were randomly assigned to receive the schizophrenia vignette or the depression vignette, and the same vignette was presented to each participant at three assessment points: before (pretest) and after (posttest) the intervention and 6 months after the posttest (follow-up). Combined data from both vignette groups indicated that over time, there was an increase in the percentage of items correctly classified by participants as helpful for schizophrenia and depression (p < .001), although there was a slight decrease from posttest to the 6-month follow-up in the percentage of items correctly classified. There were no statistically significant changes in participants' knowledge of mental health support and treatment resources over time when data from each individual vignette group were analyzed.

In a second study, employees from two large government departments in Australia were randomly assigned to the intervention group, whose participants received Mental Health First Aid immediately during work time, or the wait-list control group. Participants in the intervention group were presented with both the depression and schizophrenia vignettes and assessed approximately 1 month before (pretest) and approximately 5 months after (follow-up) Mental Health First Aid was received. Combined data from both vignette groups indicated that from pretest to the 5-month

	follow-up, compared with participants in the control group, those in the intervention group had a greater improvement in the percentage of items correctly classified as helpful for schizophrenia and depression (p = .036). There were no statistically significant changes between groups in regard to participants' knowledge of mental health support and treatment resources over time when data from each individual vignette group were analyzed. In a third study, community residents in a large rural area in southern Australia were matched and grouped into pairs and then randomly assigned to the intervention group. Whose participants received Mental Health First Aid immediately, or the wait-list control group. Participants in the intervention group also were randomly assigned to receive the schizophrenia vignette or the depression vignette, and the same vignette was presented to each participant at two assessment points: approximately 2 months before the intervention (pretest) and approximately 6 months after the pretest (at a follow-up occurring approximately 4 months after the intervention). Combined data from both vignettes indicated that from pretest to the 4-month follow-up, compared with participants in the control group, those in the intervention group had a greater improvement in the percentages of items correctly classified as helpful for schizophrenia or depression (p = .001). Data from each individual vignette group were not analyzed.
Studies Measuring Outcome	Study 1, Study 2, Study 3
Study Designs	Experimental, Preexperimental
Quality of Research Rating	2.6 (0.0-4.0 scale)

Outcome 3: Attitudes about social distance from individuals with mental health problems						
Description of Measures	Attitudes about social distance from individuals with mental health problems were assessed using the 4-item Social Distance Scale, a self-report questionnaire. Participants were presented with a vignette of a person who had major depression ("Mary") and/or a vignette of a person who had schizophrenia ("John"). Using a scale ranging from 1 (definitely willing) to 4 (definitely unwilling), participants responded to four questions regarding how willing they would be to move next door to, socialize with, become friends with, or work with the individual described in the vignette.					
Key Findings	A study was conducted with members of the public who responded to recruitment information distributed within a community in Australia to participate in Mental Health First Aid. All participants received the intervention. Participants were randomly assigned to receive the schizophrenia vignette or the depression vignette, and the same vignette was presented to each participant at three assessment points: before (pretest) and after (posttest) the intervention and 6 months after the posttest (follow-up). Combined data from both vignette groups indicated that over time, participants had an improvement in attitudes about social distance from individuals with mental health problems ($p < .001$). There were no statistically significant changes in attitudes about social distance from individuals with mental health problems over time when data from each individual vignette group were analyzed.					
	In a second study, employees from two large government departments in Australia were randomly assigned to the intervention group, whose participants received Mental Health First Aid immediately during work time, or the wait-list control group. Participants in the intervention group were presented with both the depression and schizophrenia vignettes and assessed approximately 1 month before (pretest) and approximately 5 months after (follow-up) Mental Health First Aid was received. Combined data from both vignette groups indicated that from pretest to the 5-month follow-up, compared with participants in the control group, those in the intervention group had a greater improvement in attitudes about social distance from individuals with mental health problems ($p = .020$). Data from the depression vignette group indicated that over time, compared with participants in the intervention group had a greater improvement in attitudes about social distance from individuals with mental health problems ($p = .020$). The depression vignette groups in regard to attitudes about social distance from individuals with mental health problems ($p = .005$). There were no statistically significant changes between groups in regard to attitudes about social distance from individuals with mental health problems ver analyzed.					
	In a third study, community residents in a large rural area in southern Australia were matched and grouped into pairs and then randomly assigned to the intervention group, whose participants received Mental Health First Aid immediately, or the wait-list control group. Participants in the intervention group also were randomly assigned to receive the schizophrenia vignette or the depression vignette, and the same vignette was presented to each participant at two assessment points: approximately 2 months before the intervention (pretest) and approximately 6 months after					

	the pretest (at a follow-up occurring approximately 4 months after the intervention). Combined data from both vignette groups indicated that from pretest to the 4-month follow-up, compared with participants in the control group, those in the intervention group had a greater improvement in attitudes about social distance from individuals with mental health problems ($p = .032$). Data from each individual vignette group were not analyzed.
Studies Measuring Outcome	Study 1, Study 2, Study 3
Study Designs	Experimental, Preexperimental
Quality of Research Rating	3.1 (0.0-4.0 scale)

Outcome 4: Confidence in providing help, and provision of help, to an individual with mental health problems				
Description of Measures	Confidence in providing help, and provision of help, to an individual with mental health problems was measured with items from a self-assessment questionnaire. Using a scale ranging from 1 (not at all) to 5 (extremely), participants responded to the first item: "How confident do you feel in helping someone with a mental health concern?" Confidence in helping someone with mental health problems was defined as a response of 3 (moderately), 4 (quite a bit), or 5. Using a choice of "yes," "no," or "don't know," participants responded to a second item: "In the last 6 months have you had contact with anyone with a mental health problem?" Participants who responded "yes" were asked to respond to additional items: "How many people?"; "Have you offered any help?" (using a scale ranging from 1, not at all, to 4, a lot); and "What type of help?" (which had an open-ended response).			
Key Findings	A study was conducted with members of the public who responded to recruitment information distributed within a community in Australia to participate in Mental Health First Aid. All participants received the intervention. Participants, who were randomly assigned to receive a schizophrenia vignette or a depression vignette (both of which were used as part of the measures of other outcomes), were assessed before (pretest) and after (posttest) the intervention and 6 months after the posttest (follow-up). Combined data from both vignette groups indicated that over time, more participants were confident in providing help to an individual with mental health problem (p < .001) and more participants who had contact with someone with a mental health problem provided some or a lot of help to that individual (p = .036). Data for each individual vignette group were not analyzed.			

Study Designs	Experimental, Preexperimental				
Quality of Research Rating	2.3 (0.0-4.0 scale)				

Outcome 5: Mental health		
Description of Measures	The mental health of participants was assessed using the mental health scale of the 12-item Short- Form Health Survey (SF-12), a self-report questionnaire. Using a yes/no response or a response on a Likert-type scale, participants responded to each item (e.g., whether they accomplished less than they would like or did work or other activities less carefully than usual during the past 4 weeks because of any emotional problems [such as feeling depressed or anxious]).	
Key Findings	In one study, employees from two large government departments in Australia were randomly assigned to the intervention group, whose participants received Mental Health First Aid immediately during work time, or the wait-list control group. Participants in the intervention group received a depression vignette and a schizophrenia vignette (both of which were used as part of the measures of other outcomes) and were assessed approximately 1 month before (pretest) and approximately 5 months after (follow-up) Mental Health First Aid was received. Combined data from both vignette groups indicated that from pretest to the 5-month follow-up, participants in the intervention group, which had a greater improvement in self-reported mental health compared with the wait-list group, which had a decline ($p = .035$). Data from each individual vignette group were not analyzed. In another study, community residents in a large rural area in southern Australia were matched and grouped into pairs and then randomly assigned to the intervention group. Participants in the intervention y who were randomly assigned to receive a schizophrenia vignette or a depression vignette (both of which were used as part of the assessment of other outcomes), were assessed approximately 2 months before the intervention (pretest) and approximately 6 months after the pretest (at a follow-up occurring approximately 4 months after the intervention). Combined data from both vignette groups indicated that from pretest to the 4-month follow-up, the percentage of intervention group participants who reported experiencing a mental health problem increased in comparison with the percentage of those in the control group ($p = .045$). Data from each individual vignette group were not analyzed.	
Studies Measuring Outcome	Study 2, Study 3	
Study Designs Experimental		
Quality of Research Rating	3.3 (0.0-4.0 scale)	

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	84% Female 16% Male	100% Non-U.S. population
Study 2	18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	78% Female 22% Male	100% Non-U.S. population
Study 3	18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	82% Female 18% Male	100% Non-U.S. population

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

- 1. Reliability of measures
- 2. Validity of measures

- 3. Intervention fidelity
- 4. Missing data and attrition
- 5. Potential confounding variables
- 6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Recognition of schizophrenia and depression symptoms	2.0	2.0	2.0	4.0	2.0	4.0	2.7
2: Knowledge of mental health support and treatment resources	2.0	2.0	2.0	3.5	2.0	4.0	2.6
3: Attitudes about social distance from individuals with mental health problems	3.5	3.5	2.0	3.5	2.0	4.0	3.1
4: Confidence in providing help, and provision of help, to an individual with mental health problems	0.5	1.5	2.0	3.5	2.0	4.0	2.3
5: Mental health	4.0	4.0	2.0	3.5	2.0	4.0	3.3

Study Strengths

The Social Distance Scale and Short-Form Health Survey are well-researched measures with strong psychometric properties. In one study, fidelity was measured with a checklist that was created by the program developers to assess intervention adherence, which was demonstrated to be very high. Attrition was low in the three studies. Two studies employed random assignment into study groups. A variety of appropriate analyses, including intent-to-treat analysis, were used across the studies.

Study Weaknesses

The National Survey of Mental Health Literacy and the self-assessment questionnaire regarding help provided to an individual with mental health problems had face validity, but other types of psychometric information were not provided. In two studies, no instrument was used to measure fidelity. Some potential confounds were introduced. One study lacked a control or comparison group. In another study, participants in the intervention group had a lower response rate to the follow-up questionnaires than control group participants. In a third study, information on participants' attendance was not collected by all instructors.

Readiness for Dissemination

Review Date: May 2012

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.

Gibb, B., & Browning-McNee, L. (n.d.). Mental Health First Aid: Curriculum modules [PowerPoint slides].

Goon, E., & Dayak, M. (n.d.). Mental Health First Aid: Accomplishments and priorities 2010-2011 [PowerPoint slides].

Jorm, A. F., Kitchener, B. A., Kanowski, L. G., & Kelly, C. M. (2006). Mental Health First Aid training for members of the public. International Journal of Clinical and Health Psychology, 7(1), 141-151.

Kitchener, B. A., & Jorm, A. F. (2006). Mental Health First Aid Training: Review of evaluation studies. Australian and New Zealand Journal of Psychiatry, 40(1), 6-8.

Kitchener, B. A., & Jorm, A. F. (2007). Mental Health First Aid [PowerPoint slides].

Kitchener, B. A., & Jorm, A. F. (2007). Mental Health First Aid: An international programme for early intervention. Early Intervention in Psychiatry, 2(1), 55-61.

Kitchener, B. A., Jorm, A. F., Kelly, C. M., Maryland Department of Health and Mental Hygiene, Missouri Department of Mental Health, & National Council for Community Behavioral Healthcare. (2009). Mental Health First Aid USA [Participant manual]. Annapolis, MD: Anne Arundel County Mental Health Agency.

Kitchener, B. A., Jorm, A. F., Kelly, C. M., Maryland Department of Health and Mental Hygiene, Missouri Department of Mental Health, & National Council for Community Behavioral Healthcare. (2009). Mental Health First Aid USA: Teaching notes. Annapolis, MD: Anne Arundel County Mental Health Agency.

Mental Health First Aid handouts:

- ALGEE Jigsaw
- Auditory Hallucination Script
- Depression/Anxiety Scenarios
- Disability Weights Exercise
- Disability Weights Templates
- Eating Disorders Scenarios
- Eating Disorders Scenarios Answer Key
- Eating Disorders: Where Do You Stand?
- Eating Disorders: Where Do You Stand? Quiz
- Handouts & Exercises Overview
- Helpful Things to Say?
- Mental Health Opinions Quiz
- Myths & Facts About Suicide
- Panic Attack Scenarios
- Self-Injury: Fact, Fiction or Somewhere in Between
- Standard Drinks
- Standard Drinks Answer Key
- Substance Use Scenarios
- Suicidal Thoughts & Behaviors Scenarios
- Traumatic Event Scenarios
- What's Your Booze IQ?
- Wheel of Pour-tune
- Who Am I? Answer Key
- Who Am I? Worksheet

Mental Health First Aid USA: Course Films [DVD]

Mental Health First Aid USA Facebook page, http://www.facebook.com/pages/Mental-Health-First-Aid-USA/262722766319

National Institute of Mental Health. (2003). Real men: Real depression. Bethesda, MD: Author.

National Institute of Mental Health. (2007). Depression. Bethesda, MD: Author.

National Institute of Mental Health. (2007). Medications. Bethesda, MD: Author.

National Institute of Mental Health. (2008). Bipolar disorder. Bethesda, MD: Author.

Office of Applied Studies, Substance Abuse and Mental Health Services Administration. (2008). The National Survey on Drug Use and Health report: Major depressive episode and treatment for depression among veterans aged 21 to 39. Rockville, MD: Author.

Office on Women's Health, U.S. Department of Health and Human Services. (n.d.). Women's mental health: What it means to you. Washington, DC: Author.

Program Web site, http://www.mentalhealthfirstaid.org

Other dissemination materials:

- Mental Health First Aid Exam for Instructors
- Mental Health First Aid Instructor Training Course Agenda
- Mental Health First Aid: 12 Hour Course Evaluation Form
- Mental Health First Aid USA Certification Standards (May 2010)
- Presentation Schedule for 30
- 2nd Annual Mental Health First Aid USA Instructor Summit Agenda
- Tenets of Fidelity

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials

- 2. Availability of training and support resources
- 3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation	Training and Support	Quality Assurance	Overall
Materials	Resources	Procedures	Rating
4.0	4.0	4.0	4.0

Dissemination Strengths

The implementation materials for instructors are comprehensive and provide all resources needed to deliver the intervention, including teaching notes, a DVD, a participant handbook and handouts, and a USB flash drive with support resources. The teaching notes are filled with eye-catching icons that facilitate instruction. Three videos depict how to interact and intervene with people experiencing a mental health problem using the action plan presented throughout the curriculum. The program Web site is easy to navigate and is continuously updated with new materials, Webinars, and podcasts; it also includes a forum where instructors can have discussions and network. Initial and ongoing certification requirements and standards for instructors are presented in detail, and adherence to requirements are monitored to support fidelity. Participants must pass an examination at the conclusion of the course to become certified as a Mental Health First Aider. In addition, a participant course evaluation is available to provide feedback for ongoing program improvement.

Dissemination Weaknesses

No weaknesses were identified by reviewers.

Costs

The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items (including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

I tem Description	Cost	Required by Developer
Participant manual	\$14.95 each	Yes
12-hour, off-site certification course (includes participant manual, handouts, and resources; certification is valid for 3 years)	Free or \$120-\$180 per person, if a fee is charged by the instructor	Yes
5-day, off-site instructor certification course (includes instructor manual and all course materials, as well as access to online technical assistance and support resources; certification is valid for 3 years)	\$1,850 per person	No
Implementation consultation	Free	No
Course evaluation	Free	Yes
Program audit conducted by the National Council for Community Behavioral Healthcare	Free	No

Additional Information

Groups that want to schedule an on-site training can contract with an instructor to conduct the training for a flat group fee.

Replications

Selected citations are presented below. An asterisk indicates that the document was reviewed for Quality of Research.

<u>* Jorm, A. F., Kitchener, B. A., O'Kearney, R., & Dear, K. (2004). Mental Health First Aid training of the public in a rural area: A cluster randomized trial. BMC Psychiatry, 4(33), 1-9.</u>

* Kitchener, B. A., & Jorm, A. F. (2004). Mental Health First Aid training in a workplace setting: A randomized controlled trial. BMC <u>Psychiatry</u>, 4(23), 1-8.

Contact Information

To learn more about implementation or research, contact: Bryan V. Gibb, M.B.A. (202) 684-7457 ext 243 bryang@thenationalcouncil.org

Consider these <u>Questions to Ask</u> (PDF, 54KB) as you explore the possible use of this intervention.

Web Site(s):

<u>http://www.mentalhealthfirstaid.org</u>

This PDF was generated from http://nrepp.samhsa.gov/ViewIntervention.aspx?id=321 on 2/25/2014