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# Adolescent Depression Prevention Toolkit

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The Presentation of an Adolescent Depression Prevention Toolkit to School Staff

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### **Abstract**

*Background:* The prevalence of depression in the adolescent population is on the rise. Currently, treatment for depression is provided mostly in clinical settings, when patients are in the acute phase of the mental illness. This type of treatment does not have preventative value to address this pandemic of depression. Prevention methods in the school settings have proven to be effective if done using evidence based guidelines.

*Methods:* This educational intervention used the Adolescent Depression Prevention Toolkit, which included screening tools and preventative methods of therapies such as cognitive behavioral therapy (CBT). A questionnaire of knowledge surrounding these methods was given before and after the intervention to assess the usefulness of the intervention.

*Results/Outcomes:* A total of 24 school staff, mainly educators and counselors in a private school in New York, participated in the intervention. The pre-test revealed only five 5% had prior knowledge about screening methods for depression or were trained in CBT. The post-test showed 95% were interested in learning more about the screening tools and CBT and an increase in their knowledge and willingness to use the information provided in the toolkit.

*Conclusion :* School based mental health professionals may use the resources in the ADP Toolkit to train teachers about methods to identify and prevent depression with interventions based on CBT methods. The school based mental health providers are in the best position to guide and support school staff in using the ADP methods which may reduce the prevalence of depression in the their adolescent population.

*Keywords:* Youth risk assessment tools, Depressive disorders, Prevention of depression, Adolescents, Cognitive behavioral therapy, School based therapy

## Introduction

The prevalence of depression is at approximately 300 million people worldwide, making it the leading cause of disability (World Health Organization [WHO], 2017). This is a twofold increase in the prevalence of depression in less than three years. Depression is projected to become the leading cause of disease burden by 2030 if the current trend of treatment with conventional methods continues and preventative methods are not put in place (Mathers & Loncar, 2006; Van Zoonen et al., 2014). The onset of depression usually occurs during the child and adolescent years, but only a small percentage of those who experience depression receive treatment (Birmaher et al., 1996, Björkenstam et al., 2017, Costello, Foley & Angold, 2006; Kessler et al., 2007; Patel, Flisher, Hetrick & McGorry, 2007). Numerous studies support the findings that about one in five adolescents need mental health services (Burns & Rapee 2016).

It is important to educate individuals working in settings with the child and adolescent population about routinely screening for depressive symptoms while they are at the subclinical level (Burns & Rapee 2016). Preventative services will reduce the number of children and adolescents with depressive symptoms and prevent them from developing a major depressive disorder during their lifetime (Mendelson & Tandon 2016). The Institute of Medicine (IOM) has put preventative services into three categories. The first is the universal approach, which targets groups of people in a specific area, for example an entire school district (Mendelson & Tandon 2016). The second type of prevention is the selective method, which targets subgroups who are at risk. And the third type of prevention is the targeted, also referred to as indicated intervention, which focuses on individuals at the highest risk with subclinical symptoms (Mendelson & Tandon 2016).

## Background

Depression affects approximately 13% of the adolescent population between the ages of 12 to 17, making it one of the most common psychiatric disorder in the adolescent population (National Institute of Mental Health, 2017). In the United States, the prevalence of depressive disorders increases twofold from age 13 to the age of 18 (Merikangas et al., 2010). Additionally, after the onset of puberty, rates of depressive disorders and other mood disorders are significantly higher in females compared to males (Merikangas et al., 2010). In 2016, the prevalence of major depressive episodes among adolescents was at 19.4% among females and 6.4% in males (National Institute of Mental Health, 2017).

Furthermore, major depressive episodes may lead to major depressive disorder (MDD) (Wiens et al., 2017). The onset of depression during childhood and adolescence is a risk factor for poor mental health during adulthood, resulting in an increased risk of substance use and suicidal behaviors (Wiens et al., 2017). Only about 19% of children and adolescents who experience depression are diagnosed and receive treatment. This is mainly due to lack of providers who specialize in treating psychiatric illnesses (Yellowlees et al., 2008). Rural areas have even larger gaps between the need for providers and the availability of providers to meet this need (Yellowlees et al., 2008)..

The mental wellness of children and adolescents is crucial to their healthy development; it has a major influence on the individual's entire life cycle (Hoyt, Chase-Lansdale, McDade, & Adam, 2012). The period from adolescent to adulthood is a crucial developmental stage because of the rapid rate of developmental growth that takes place during these years (Hoyt et al., 2012). Adolescents seek autonomy, and in turn will make decisions that impact their health, either positively or negatively (Hoyt et al., 2012). During

this time adolescents start self-selecting their own social network (Hoyt et al., 2012). Adolescents with depressive symptoms are at higher risk for unhealthy behaviors and making poor choices. They are more likely to develop physical health problems such as obesity, asthma, and diabetes (Hoyt et al., 2012).

Studies have found that targeted prevention methods, such as the indicated and selective type, are effective in reducing symptoms of depression. However, studies that have tried to determine the efficacy of universal method have mixed results; some found them to be effective while others found them to be ineffective (Tak et al., 2016). School based therapies for youth with mild to moderate level of symptoms have resulted in improved outcomes (Tak et al., 2016).

The Institute Of Medicine also defined the levels of prevention as universal, selective and indicated (Mendelson & Tandon 2016). It is best to utilize the different levels of prevention to best serve the needs of adolescence who are at different levels of risk (Mendelson & Tandon 2016). Prevention at every level requires screening methods to detect the individual's risk factors for depression.

A screening tool called RADAR has demonstrated strong validity and reliability to detect risk and protective factors (Burns & Rapee 2016). This screening tool was created to identify adolescents at risk of developing mental illnesses. This is type of approach is less stigmatizing, because it is not looking for symptoms of mental illness. The term RADAR is not an acronym, as it is it stands for 'radar' to alert educators regarding the risks associated with mental illnesses (Burns & Rapee 2016).

The RADAR was created based on scientific evidence that support the elements of risk and protective factors, which influence mental health in the adolescent population

(Burns & Rapee 2016). There are six categories of risk and protective factors included in the RADAR, which are determined to be part of the knowledge and competency of educators.

The six domains of the adolescent's lifestyle that are included in the RADAR are: 1. academic competence, 2. peer relationships, 3. school connectedness, 4. family environment, 5. sporting interests and 6. activities. Six subscales were included in each of the categories resulting in a 30 item screening tool. The questions are rated by the adolescent on a 5-point Likert scale from 1 to 5, where 1 is "not at all like me" to 5 "very much like me." (Burns & Rapee 2016).

A screening tool that determines the adolescent's risk level or symptoms of depression is necessary to determine the type of care they may need. The most widely used and researched tool is the Patient Health Questionnaire 2-item (PHQ-2) and 9-item (PHQ-9) version. The PHQ-9 and PHQ-2 are used as a depression-screening instrument for adolescents (Allgaier, Pietsch, Fruhe, Sigl-Glockner & Schulte-Korne, 2012). The Patient Health Questionnaire (PHQ) are depression screenings that come in two and nine item versions. The PHQ2 is based on the first two items of the PHQ9, which are questions about feeling sad or experiencing anhedonia. The rating for both versions is based on a Likert-Scale of 0 for "not at all", 1 for "Several days", 2 "more than half the days" and 3 for "nearly every day". The PHQ2 is used for rapid screening. If the answer to any of the two questions is positive, then it is recommended that the PHQ9 is administered (Richardson et al., 2010). The screening methods should be followed by a preventative methods of interventions that are evidence based to be the most effective in the school settings.

The intervention that is most evidenced based for all levels of preventions is school-based therapy. The most reliable evidence based therapy in the school settings is cognitive behavioral



therapy (CBT) (Mendelson & Tandon 2016). A recent analysis of therapies that are most effective for depression in youth indicate that CBT is one of the most effective types of therapy in this age group (Zhou et al., 2015). This approach focuses on changing negative styles of thinking by challenging the thoughts and the behaviors that are based on dysfunctional thinking (Rice et al., 2015). Several variations of CBT are designed to provide therapy to individuals with specific psychiatric illnesses or individuals who are at risk for certain types of mental illnesses (Zhou et al. (2015).

### **Review of The Literature**

The databases that were used to obtain the articles for this review were PubMed PsychInfo, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Reviews, Ovid and Embase. The following key words were used: "*School based*" And *Cognitive-behavior\** AND *depression* OR *mood*. The additional filters set in all the databases were to select articles published in the past five years in *English* and articles including participants up to *18 years old*.

The studies in this integrative review were selected based on the following criteria for inclusion: (a) studies which identified the adolescent population with depressive symptoms in the *school settings*; (b) studies which were looking to determine the effectiveness of a preventative therapies that are based on CBT concepts (c) studies which were looking to examine the effectiveness of school based intervention in mostly mild to moderate level of depressive symptoms or subclinical level of depressive symptoms.

Studies that were excluded from this integrative review were: (a) systematic reviews articles, analysis of other studies, editorial opinions and any articles that were not primary research studies; (b) studies about CBT for non-depressive disorders; (c) studies which

included depressed participants with other comorbid disorders, such as bipolar, psychosis, trauma and/or substance use disorders; (d) studies which included participants with suicidal ideation. A total of twelve studies met this criterion.

The main sample characteristic that the twelve studies in this review have in common is the age range from 11 to 17. Participants were primarily in middle school and high school. Most of the selected studies had a significantly higher percentage of female participants compared to male participants. Two studies, one by Wijnhoven et al., (2014) and by Noël, Rost and Gromer (2013) only included female participants. This is not surprising, since prevalence of depression in female adolescents is higher compared to male adolescents.

## Results

### Methods of Prevention

**Universal Method.** The twelve studies included in the review represented the three types of preventative methods, universal and selective and indicated. The five studies with the universal treatment designed were the following: (Garmy, Berg, & Clausson 2015; Garmy, Jakobsson, Carlsson, Berg, & Clausson, 2015; Garmy, Clausson, Berg, Steen Carlsson, & Jakobsson, 2017; Possel, Martin, Gerber & Hautzinger, 2013; Challen, Machin, & Gillham, 2014).

**Non-Universal Level of Prevention.** Seven studies included participants who exhibited risk of developing depression. The selective and the indicated level of preventions have a certain level of overlap in the way participants are selected. In this review, the studies that included participants described as having either risk factors for depression or elevated symptoms of depression were included and are summarized as non-universal levels of

preventions. The following is the list of studies that are in these categories: (McCarty, Violette, Duong, Cruz, & McCauley, 2013; Duong, Cruz, King, Violette, & McCarty, 2015; Duong, Kelly, Haaland, Matsumiya, Huey & McCarty, 2016; Poirier, Marcotte, Joly, & Fortin, 2013; Wijnhoven, Creemers, Vermulst, Scholte, & Engels, 2014; Noël, Rost & Gromer, 2013; Listug-Lunde, Vogeltanz-Holm & Collins, 2013).

### **Types of Cognitive Behavioral Therapies**

**Adolescent Coping with Depression course (CWD-A):** Six out of the twelve studies were based on the CWD-A manual developed by Clark & Lewinson (1990).

Listug-Lunde et al. (2013) was a preventative study, which examined the effectiveness of an intervention developed based on the *Adolescent Coping with Depression course* (CWD-A). The study included 16 rural American Indian adolescents ages 11 to 14 with elevated depressive symptoms. *Adolescent Coping with Depression course* has been developed by Clark & Lewinson (1990) to improve cognitive, behavioral, interpersonal, self-control and social skills in adolescents (Listug-Lunde et al., 2013). There were cultural modifications made to the original CWD-A course that were specific to the American Indian population. There were significant reduction in depressive symptoms post intervention and at 3 months follow-up (Listug-Lunde et al., 2013).

Noël et al. (2013) developed an intervention *Talk n Time*, which is based on CWD-A. This study included 34 female participants ages 13 to 15 with elevated symptoms of depression. The modification in *Talk n Time* has elements of positive youth development (PYD) principles “(1) fostering an ability to overcome obstacles, (2) promoting clear thinking and reasoning, (3) fostering a sense of positive agency, (4) promoting the creation of positive identity, and (5) teaching youth to understand and control emotions” (Noël et al.,

2013). The goal was to study an intervention that would have the most feasibility for students in rural areas who may be disadvantaged socioeconomically and do not have access to mental health services. The intervention was twelve weeks of 90 minutes sessions (Noël et al., 2013). At post intervention, there was a significant improvement in the depressive symptoms of the participants in the experimental group. Talk n Time by Noël et al. (2013) was provided by high school students as an intervention delivered to middle school students.

Pare-Chocs is a depression prevention program based on the CWD-A manual (Poirier et al., 2013). The Pare-Chocs has also incorporated concepts from the book titled *Rational-emotive therapy with children and adolescents: Theory, treatment strategies, preventative methods* (Bernard & Joyce, 1984). The Pare-Chocs added activities that promote self-esteem and better body image from the book *L'estime de soi de nos adolescents* [The self-esteem of our adolescents] (Duclos, Laporte & Ross, (1995). The program is designed for adolescents ages 14 to 17, who exhibit depressive symptoms. The intervention consists of 12 one and half hour to two hour sessions for groups of 6 to 10 participants (Poirier et al., 2013). Fifty three adolescents ages 14 to 17 with elevated symptoms of depression were included in this study (Poirier et al., 2013). The experimental group showed significant reduction in cognitive distortion and depressive symptoms after the interventions. The intervention also helped participants in the experimental group learn better problem-solving skills (Poirier et al., 2013).

Depression in Swedish Adolescents (DISA) is a manual modified for Swedish adolescent, based on the cognitive behavioral program Coping with Stress (CWS) (Garmy et al., 2015; Garmy et al., 2017). The CWS manual is the modified version of the CWD-A manual. The three studies examined DISA intervention and its effectiveness in the

adolescent population as a preventative program. The CWS is a program to treat youth at risk, but the DISA was modified to a universal intervention in the school settings (Garmy et al., 2015; Garmy et al., 2015; Garmy et al., 2017).

Of the two studies published by Garmy in 2015, the first was a qualitative study, which examined the experiences of 89 adolescents ages 13-15 (Garmy, Berg, & Clausson 2015). In this study the participants were interviewed about their experiences with the intervention. The program taught interpersonal skills by focusing on stress management, positive thinking, direct thinking, engagement in positive activities, and overall self-confidence. The participants reported they benefited from the interventions in all categories and found the program helpful, but did comment that the program should focus less on negative thoughts (Garmy, Berg, & Clausson 2015).

The second one was a pilot study with a quasi-experimental design, which evaluated the DISA intervention with 62 eighth graders. The participants were all 14 years old. The intervention significantly improved symptoms of depression when measured post intervention and at one-year follow-up (Garmy, Jakobsson, Carlsson, Berg, & Clausson, 2015).

The third study attempted to replicate the second one with a larger number of participants to test the feasibility of the DISA intervention. There were 462 participants in this study, all eighth graders ages 13 to 15. At post intervention the experimental group reported decreased symptoms of depression and improvement in their health habits (Garmy et al., 2017).

**Penn Resiliency Program for Children and Adolescents (PRP):** The PRP is one of the most widely studied methods of delivering therapy to the adolescent population

(Brunwasser, Gillham, Kim, 2009). Studies show Penn Resiliency Program to be efficacious for youth in elementary to middle school ages. The Penn Resiliency Program curriculum is based on the CBT concepts that one's beliefs about events in life has impact on their emotions and how they demonstrate their emotions in reacting to those events ("Resilience In Children," 2018). The study by Challen et al.(2014) and Wijnhoven et al. (2014) used interventions that are based on the Penn Resilience Program concepts.

In the study by Challen et al. (2014), the Penn Resiliency Program was modified to the United Kingdom population and it was called the UK Resilience Program (UKRP). This was one of the largest studies as a universal level of prevention with participants from 16 schools. The total number of participants included 2,844 children ages 11 to 12. The program consisted of 18 hours of classroom instruction that the different schools split into either; 50 minutes, one hour or 100 minutes session based on the schools normal schedule. Teachers were the main facilitators of this intervention and received training from the mental health providers with expertise in the delivery of this program (Challen et al., 2014). The Penn Resiliency Program method in this study utilized as a universal level of prevention had a modest effect size, compared to studies where the intervention was designed for indicated level of prevention (Challen et al., 2014).

A second study by Wijnhoven et al., (2014) also studied the effectiveness of the Penn Resiliency program. This study took place in the Netherlands and the Penn Resiliency program was modified for Dutch adolescents. The 'Op Volle Kracht', which translates to ('On Full Power') is a variation of the Penn Resiliency Program. Wijnhoven et al. (2014) studied the effectiveness of the program as an indicated level of prevention and found the intervention significantly effective in reducing depressive symptoms in the adolescent

population. The study included 102 female participants ages 11 to 15, with elevated symptoms of depression. The program was delivered in 16 sessions, each lasting 50 minutes. The first eight sessions were mainly based on the CBT concepts to build positive self-schemas. The last eight sessions are focused on problem solving skills. The group, which received the intervention reported significantly decreased symptoms of depression at post intervention and after 6 months of follow-up (Wijnhoven et al., 2014).

**Positive Thoughts and Actions (PTA):** Three studies with the same authors who used the PTA prevention reported good outcomes (McCarty et al., 2013; Duong et al., 2015; Duong et al. 2016). This is an intervention designed by the authors to use cognitive behavioral approaches in addressing risk factors that are common in the adolescent population. The three areas addressed were interpersonal relationships, school problems and personal adjustments (McCarty et al., 2013; Duong et al., 2015; Duong et al. 2016). The first study was a randomized control study of 120 participants ages 11 to 15 (McCarty et al., 2013). The second and the third manuscript publications were based on the same study and results of the data from the same sample (Duong et al., 2015; Duong et al. 2016). This was also a randomized control study with 120 participants ages 12 to 14. The study examined the effectiveness of PTA compared to Individualized Support Program (ISP). The study by Duong et al. (2015) reported the effectiveness of PTA compared to ISP and that the mediators and moderators contributed to the effectiveness of PTA. The PTA method was effective in reducing symptoms of depression and improving the self-esteem of the participants compared to the ISP method. The PTA method is still under further investigation by the original authors but the manual is not publicized.

**Desire for a Realistic View and Ease in Social Aspects of Everyday Life (LARS & LISA):** The last study on this list used a program is called Lust An Realistischer Sicht & Leichtigkeit Im Sozialen Alltag Lust (LARS & LISA) (Possel et al., 2013). It is translated in English as Desire for a Realistic View and Ease in Social Aspects of Everyday Life. The program manual is based on preventive program in Germany was customized for use with teens in the United States (Possel et al., 2013). The LARS & LISA was developed based on the original CBT concepts and social information processing (SIP) model developed by Dodge, (1993). The SIP theory focuses on the mental processing of information by depressed patients and their interpretation of social stimuli.

The goal of this program was to help depressed patients learn to process social stimuli to build positive schemas and avoid maladaptive coping styles (Dodge, 993). Participants were 518 with mean age of 15. The intervention was at a universal level with a randomized control study design. and consisted of 90 minutes sessions for 10 weeks during regular school hours(Possel et al., 2013). The results showed a slight increase in the depressive symptoms at the completion of the program, and a significant decrease in symptoms at four and eight months follow-ups, followed by a marginal decrease in symptoms at 12 months follow up (Possel et al., 2013).

#### **Theoretical Framework/Evidence Based Practice Model**

The theory that guided this project was based on Kurt Lewin's Planned Approach to Change theory (Burnes, 2004). The theory has three steps, *unfreezing*, *moving*, and *refreezing*. The *unfreezing* refers to the first step to bring about change and is described as a process to disturb the equilibrium between the driving and restraining forces.



In this project, the process of *unfreezing* involved contacting the administrators in the schools regarding the issue of depression, and to get stakeholders to commit to participating in this intervention. Some school administrators were aware of the problem with child adolescent issues, but did not understand the causes and did not know what their options are in dealing with the problem. Another concern that the administrators had was the staff's availability for this type of educational presentation due to the scheduling issues and being unable to commit to the time requirement.

In the second step, which is the *moving* phase, the goal was to put into action some of the theory. This was the phase of the project where the staff from the school that wanted to receive the intervention were presented with the toolkit and education about how to use the toolkit. The goal was that by the end of phase 2, the school staff felt empowered and better prepared to start using the toolkit.

Following this was the third phase of the theory, which is the *refreezing* phase. In this phase, the goal is stabilizing the group back to equilibrium and helping them to continue to use their new set of knowledge and skill. The goal during this phase was to provide support to the staff to prevent regression (Burnes, 2004).

### **Project Design**

The Adolescent Depression Prevention (ADP) Toolkit was presented with a power point including background information about depression in the adolescent population with statistics about the prevalence. This was followed by information about the preventative methods that are evidence based including the three different types of preventions, tools and screening methods that are part of these preventions. Information about screening method, such as PHQ2, PHQ9 and RADAR for the adolescent population were also introduced and

information about the usefulness and clinical implications were discussed. Cognitive behavioral based methods of prevention in the school settings were also introduced and the origins of the theory as well as other therapies based on CBT were discussed. Resources and supportive material about the screening methods and the therapy methods were included in the presentation. (*See Appendix A for the outline*).

### **Project Site and Population**

The setting for this project was a small private school in the greater New York area. The administrators of this school were proactive about receiving information about depression in the adolescent population in order to learn about the preventives process. There were 24 school staff who participated and answered the pre-intervention questionnaires, but only 21 of those participants also did the post intervention questionnaires.

### **Setting Facilitators and barriers.**

One of the major barriers to presenting this information to the schools was that the school staff was overwhelmed by their daily work and getting the staff to attend a meeting was a challenge. The administrators in the school where this project was presented were the main facilitators. They saw great value in working with mental health professionals to gain understanding about preventative methods. Other facilitators were the staff themselves who had voiced their concern about the increase in challenges in the middle schools and high schools. The school counselor played a major role in the process of implementing the intervention and facilitating the administration of the pre and post intervention questionnaires.

### **Goals & Objectives**

The main aim of this project was to design an intervention for the school staff to increase their knowledge about depression in the adolescent population and to provide them with information about screening methods and interventions that are evidence based. In order to provide this intervention, several objectives were identified. The objectives included:

1. The development of pre and post intervention questionnaires, which were developed for benchmark information about the school staff's knowledge of adolescent depression and ADP methods.
2. The development of the ADP toolkit with a power point presentation to improve school staff's knowledge about adolescent depression and ADP methods. It is assumed that increasing the school staff's knowledge about the prevalence of depression in the adolescent population and providing information about the ADP methods will reduce the prevalence of depression in the adolescent population and may result in overall reduction of depression in the general population.

### **Implementation Plan/Procedures**

#### **Assessment Phase**

The prevention of depression in the adolescent population was identified by stakeholders and by literature review as an important topic. Twenty public school districts were contacted in the greater New York area between the beginning of January 2016 throughout July 2016. Most districts required an email to be sent to the principle or the superintendent. Only one public school's curriculum development department requested more details about the intervention. All the public schools responded back and said they

were unable to be part of this project. They did not give reason for why they were unable to receive this information.

Another twenty-three private schools in the state of New York and Connecticut were contacted. The interaction with the private schools for the most part was more positive than the interactions with the public schools. Most individuals who were contacted in the private schools were initially very interested in the information about prevention of depression in the adolescent population. The private schools were often on a very small skeleton crew in the summer months and the process of getting a commitment of time was challenging.

There were a few interesting conversations that took place with the different schools. One school principal who was contacted regarding this project, said “We don’t have that problem in our school.” Other schools were not as forthcoming about their constraints. It did become evident that for the most part, the major issues in presenting the information to school staff were time and attendance. The school staff did not have the time to coordinate the meetings and schedule the intervention to ensure that staff is available.

Finally, one of the private schools that was contacted during the summer had responded positively and administrators were interested in receiving information about depression in the adolescent population. The principal and the assistant principal were first given the information about the presentation to give them a better understanding of the goals, objectives and the requirement of the project. The principal of this school gave the permission for the project and assigned the assistant principal to facilitate the remaining process.

### **Intervention Phase**

The assistant principal also proved to be very a strong facilitator in coordinating and planning for the dates and schedules of the interventions. This individual worked to set the schedule for the dates of the intervention and to assist in providing the necessary space and equipment for the presentation. This individual was responsible for getting the school staff to attend one of the two dates set for the intervention and was also a facilitator in making sure that all attendees filled out the questionnaires. Originally the plan was to have a total of 25-30 individuals to participate in receiving the information, but a total of 24 individuals were in attendance. Twenty one of the 24 did the pre-presentation questionnaires. And 21 out of the 24 participants who did the pre-presentation questionnaires, also did the post presentation questionnaires. The presentation was delivered at the same time of the day on two consecutive days. About half of the individuals attended the presentation on the first day and the other half attended the presentation on the second day. The staff who attended were mostly educators with a few school counselors and administrators. The same group who received the training were as asked to answer questions about the usefulness of the toolkit, what they found helpful and what their recommendations are for further improvements.

### **Evaluation: Data Collection and Analysis**

The pre-and post-intervention questionnaires results were analyzed using descriptive statistics through SPSS statistical software. A qualitative review of the answers of both pre-and post-intervention was performed to further understand the quality of the information that was provided by the participants.

### **Ethical Considerations/Protection of Human Subjects**

A determination of human subjects review was requested through the University of Massachusetts Amherst Institutional Review Board (IRB) and a waiver was granted. (*See Appendix B for the copy of the IRB*). All necessary ethical considerations in relation to Human Subjects were followed and the Standards of Care to protect participants was followed. All participants were protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), which protects the privacy of participant's health information (Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules, 2013). The project was carefully conducted and the *Standards of Care* for practice in the school setting were followed. All information collected did not include any potential participant identifiers.

The risk to participants in this project was not different from the risks of the participants without receiving this information. Participant confidentiality was assured by coding the participants using individual identification numbers. The list of participants and their identifying numbers was only accessible to the project coordinator. All electronic files containing identifiable information were password protected to prevent access by unauthorized users.

## **Results**

### **Sample and Intervention Group Characteristics**

A total of 24 staff received the intervention and 21 of those staff answered both the pre-the pre and post intervention questionnaires. Nineteen of the 21 participants were teachers, one school counselor and one a school administrator. Eleven of the 21 participants hold a bachelor's degree (52.4 percent), five hold a master's degree (23 percent), three hold a doctorate degree (14.3 percent) and two hold an Associate degree (9.5 percent).

Of the 21 participants, only three were male and the remaining 18 were female. It is of note that the three participants who did not complete the post intervention questionnaires, were all male participants. The results of the questionnaires from the 21 participants who answered both the pre and post interventions are as follows.

### **Qualitative Responses from Pre-Test**

The participants were asked regarding their knowledge about depression and were asked to include a comment. Some of the responses were the following;

1. *“It is the ‘common cold’ of mental illness.”*
2. *“Many children go undetected and untreated.”*
3. *“It (depression) can lead to extreme cases.”*
4. *“It is very common these days, it should be detected and treated as soon as possible.”*
5. *“Affects all aspects of life ( life emotional, work).”*
6. *“Depression is,, severe mood changes.”*
7. *It cannot be judged based on the surface and image of a person or a case.”*
8. *“Its fatal/silent killer.”*

A second question that required a comment was the participant’s knowledge about the best psychotherapy for adolescent population. Some participants admitted they did not know anything about any type of therapy as a form of intervention. The following were some of the responses;

1. *“Group sessions, role play.”*
2. *“Speaking with therapist.”*
3. *“Appropriate education.”*

4. *“Trying to talk to the student”*
5. One participants mentioned *“CBT”* and
6. One participants mentioned *“CBT or SFBT”* (solution focused behavioral therapy).

The last question as part of the pre intervention questionnaire asked about the staff’s confidence level in providing support to the adolescent population and to comment about why they did or did not feel confident. Only eight out of the 21 participants commented. Five participants who said they felt confident in their abilities to support the adolescent population said the following;

1. *“It’s relatable, telling them I’ve passed a similar phase.”*
2. *“Questioning them regarding their needs.”*
3. *“Being there when they need a lending ear.”*
4. *“Listen and care.”*
5. *“I share a good rapport with the students.”*

Only three participants commented regarding why they did not feel confident:

1. *“Knowing what boundaries can/cannot be crossed when dealing w/depressed students. Knowing who to consult in regards to concerning sings in students.”*
2. *“Parents can be quite challenging.”*
3. *“Time-training.”*

Descriptive statistics on the participant’s knowledge level regarding screening for depression from the pre and post intervention questionnaires quantitative were generated through the SPSS program version 24 and presented in Table 1.

**Table 1. Pre-Intervention Scores of Participant’s Knowledge of Screening Tools for Depression**

<i>Participants Knowledge Pre-test</i>	<i>Yes</i>	<i>No</i>
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<i>Detecting Depression in Adolescents</i>	6 (28%)	15(71%)
<i>Screening Methods for at risk adolescents</i>	1(5%)	20(95%)
<i>Depression Rating Scales PHQ-2 or PHQ-9</i>	1(5%)	20(95%)

Six participants reported that they believe they can detect depression in the adolescent population. Only one participant reported knowledge about screening methods and one reported knowledge about PHQ2 or PHQ-9 rating scales. Participants were also asked Likert-scale questions about their general knowledge regarding psychotherapy and more specifically about CBT.

Table 2. presents the pre intervention scores about general knowledge about psychotherapy.

<b>Table 2. Pre-intervention scores about participants knowledge of Psychotherapy and CBT</b>	
<b><u>Any type of psychotherapy</u></b>	N (%)
I have never heard of it	3 (14%)
I have heard of it, but I don't know how it is delivered	15 (71%)
Someone I know, received psychotherapy	2 (9%)
I provide psychotherapy	1 (5%)
<b><u>Cognitive Behavior Therapy (CBT)</u></b>	
I have never heard of what CBT	6 (29%)
I have some knowledge about it, but not sure about how it is practiced.	12 (57%)
I have taken training courses, but never actually used this method.	1 (5%)
I am a beginner CBT therapist	1 (5%)
I am an expert CBT expert	1 (5%)

The results show that three participants were not familiar with psychotherapy, 15 participants had heard of it, but did not know how therapy was delivered: two participants reported someone they know have received psychotherapy and one participant reported she provides psychotherapy.

Participants were also asked specifically regarding their knowledge about CBT. Six participants had never heard of CBT, 12 had heard of it, but did not know how it was delivered. One participant had trained in CBT, but did not use the method. One reported being a beginner CBT therapist and only one other reported being an expert CBT therapist.

### **Analysis of Post-intervention Questionnaire**

The post-intervention questionnaire also asked participants to comment or elaborate about some of the questions. Some comments that participants did make were regarding the general presentation are as follows:

1. *“Very informative but short.”*
2. *“CBT and the motivational interviewing- really liked the dialogue and helped me understand what was meant.”*
3. *“The sharp recent increase in depression cases. Why? Correlation to technology?”*
4. *“Prevalence of suicide in adolescents.”*
5. *“I would like to know more about how we can handle discussions on self-harm, depression/suicide when the topics are brought up during class (i.e, while reading novels).”*
6. *“Females having higher rate of suicide.”*
7. *“The questionnaire,,PHQ9.”*

Descriptive statistics for post-intervention data are displayed in Table 3.

Table 3. <i>Post-intervention scores about participants knowledge regarding depression in adolescents</i>
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	Yes N (%)	NO N (%)
Was this information useful to you and will it change your practice?	19 (90%)	2 (10%)
Has this presentation piqued your interest to learn more about the screening tools and CBT?	20 (95%)	1 (5%)
Do you feel the information in this toolkit is enough for you to start using the screening tools?	15 (71%)	6 (29%)
Do you feel the information in this toolkit is enough for you to learn more about the CBT method?	14 (67%)	7 (33.%)
Will you share the information in this toolkit with other colleagues to educate them about its usefulness?	20 (95%)	1 (5%)
Which preventative type of method do you believe is best?		
Universal	6 (28%)	
Selective	13 (61%)	
Indicated prevention	2 (9%)	

The majority of the responses to the post-intervention revealed that the participants had a positive experience and learned from the intervention. Over 90 percent of the participants found the information useful. Ninety five percent reported increased interest in learning more about CBT, while almost 67 percent of the participants reported that the Toolkit provided them sufficient resources to start learning about CBT.

Seventy one percent of the participants reported the Toolkit provided them the information to start screening adolescents for risk of depression. The majority of the participants reported that the selective type of interventions would be best, while universal level of intervention was chosen by 28 percent. Only two participants selected the indicated level of prevention. The universal and selective levels of prevention were identified as the most appropriate for the school settings.

### **Discussion**

Prevention in the adolescent population is necessary to reduce the prevalence of depression in the general population. Methods of prevention at all levels, universal, selective and indicated may have the most significant results in reducing the prevalence of depression. The results of the educational intervention with an ADP Toolkit in the school settings support the findings that school staff are interested in learning about the methods of preventions at all levels.

The results of this project showed that 70 percent of the participants choose the non-universal methods of prevention to be the most effective in the school settings. This is in alignment with the results of the literature review. Seven out of the 12 studies were based on the non-universal type of prevention methods. The non-universal type of preventions includes selective and indicated level of preventions. The selective levels of prevention are interventions for youth identified to be at risk of developing mental illnesses. The indicated level of preventions targets youth with some symptoms of mental illness that are subclinical and do not meet criteria for a diagnosis.

All types of preventative services in the school settings show promising results. The result of this project demonstrated that an ADP Toolkit was found to be effective in

educating school staff about the prevalence of depression in the adolescent population. The ADP Toolkit was found to be effective in increasing the school staff's knowledge about the different levels of preventions. The ADP Toolkit provided the school staff with resources and information about screening tools that are used for each level of prevention.

The school staff also found the information about the therapy methods, such as CBT based communication or therapeutic interventions useful. This project accomplished the two elements of the Lewin's theory of change, which are *unfreezing* and *moving*. The *unfreezing* was accomplished by contacting the numerous schools and by talking to more than 40 school staff to inform them about this initiative. The *unfreezing* process included the efforts to contact the school administrators where the project was implemented. The administrators in this school were provided information to gain their support for the implementation of the project.

The *moving* part of the Lewin's theory was the actual intervention, where the school staff participated in the viewing of the presentation and responded to the pre and post intervention questionnaires. This project successfully accomplished the first two elements of Lewin's theory of change; the results of the pre and post intervention questionnaires showed significant change.

There was an increase in the school staff's understanding about the methods, tools and resources that are available for them, to improve their ability in supporting the adolescent population. The results of this study show promise that the *refreezing* part of change will also occur; participants may continue to develop and use their new knowledge and skills.

The results of questionnaires show that the school staff members who participated in this intervention were motivated to continue the use of the ADP Toolkit. The results also showed that the school staff is interested in learning more about this topic and are willing to participate in trainings that help them improve their knowledge and skills about how to help the adolescent population.

### **Sustainability**

The first step in starting a prevention program will require the school administrators and stakeholders to decide how they will implement universal and non-universal prevention programs. The universal programs will require schools to offer the program to all their students in selected grades during normal school hours. For example, they may choose to provide the intervention to all students in seventh and eighth grades.

The non-universal level of prevention will require school administrators to decide if they will provide the intervention before or after school hours. Students and their parents must be informed about the type of screenings and interventions offered by the school staff. Students and their parents should also be given information about the possible risks and benefits of the intervention. Parents who want their children to receive the intervention should be provided with appropriate consent forms that require the parent and the child's signatures. Screening methods that determine the students risk factors and protective factors are necessary for both universal and non-universal levels of preventions.

There is stigma attached to screening for symptoms that are associated with a diagnosis, which may be perceived as a "label". School administrators and school based mental health providers have been reluctant to implement screening methods due to the stigma associated with mental illness (Burns & Rapee 2016).

The RADAR was developed to identify youth before they are symptomatic. The RADAR is considered to be a “presymptom” screening method (Burns & Rapee, 2016 p.1226). School staff interested in the screening process, may consider the RADAR screening method; this is the latest evidence based method to detect and identify youth at risk of mental illnesses (Burns & Rapee 2016). The 30 item screening tool assesses risk factors associated with peer relations, academic competence, school connectedness, family environment, sporting interests and activities. This screening method is available through their website and it is easy to use (“Macquarie University: Resources,” n. d.).

### **Universal Prevention**

Universal level of prevention has the broadest reach. Studies that implemented this type of prevention are successful, especially when the focus is on wellness rather than illness (Garmy et al., 2017). Teachers have a major role in delivery of universal preventative programs. In the study by Challen et al. (2014) school teachers were able to successfully provide the intervention during school hours. The teachers participated in eight online training modules that were approximately 45 to 65 minutes in duration. The DISA program, based on the *Instructor’s manual for the adolescent coping with stress course (CWS-A)* developed by Clark and Lewinson (1995), also utilized school staff to facilitate the intervention. The facilitators received three days of training about the DISA program, prior to delivering the intervention to their students (Garmy et al., 2015; Garmy et al., 2017). The facilitators included mental health providers, schoolteachers, school teacher’s assistants and school nurses. The school staff successfully delivered the intervention with good outcomes.

School based universal methods are less stigmatizing, because all students in one or more schools are given the opportunity to participate. The universal level of preventative

programs are the only type of preventions that are imbedded in the classroom curriculum and delivered during regular school hours. This makes the programs more accessible for students and feasible for the school administrators (Garmy et al., 2015). The non-universal levels of preventions cannot be part of the school schedule. Youth at risk of depression may be identified through screening methods such as the RADAR, PHQ-2 or PHQ-9.

### **Non-Universal Prevention**

The studies that participated in the non-universal level of prevention, did the interventions either before or after the normal school schedules (McCarty et al., 2013; Duong et al., 2015; Duong et al., 2016). Screening methods were used to identify adolescents at risk of developing depression with sub-clinical symptoms. The participants went through a secondary screening with PHQ-9 to identify those who had a possible diagnosis of major depression disorder or suicidal thoughts. A score of 10 or higher on the PHQ-9 may be indicative of a major depressive disorder (Arroll et al., 2010).

The ones who were identified with major depressive disorder or suicidality, were not included in the study, but were given proper referrals to appropriate level of treatment in a clinical setting (McCarty et al., 2013; Duong et al., 2015; Duong et al., 2016). Multiple risk and protective factors were identified and measured by interviewing the students, parents and teachers. The students were evaluated based on their school problems, personal adjustments and interpersonal relationships.

The advantages of this type of prevention is that it is based on the students understanding of their own issues; it also requires parents and teachers to give feedback regarding the students interactions in each setting (McCarty et al., 2013; Duong et al., 2015; Duong et al., 2016). The intervention was designed to help adolescents develop skills in



accomplishing goals that are important to them and their families (McCarty et al., 2013; Duong et al., 2015; Duong et al., 2016).

The majority of the studies in the literature review used interventions that were based on the *adolescent coping with depression manual (CWD-A)*, which is available in the public domain and was used by many of the authors of the studies in the literature review. The studies that used the CWD-A modified the treatment to a preventative type of intervention. One modified version of the CWD-A is the *Adolescent Coping with Stress course (CWS-A)*, which is also available in the public domain. The literature supports the use of the *Instructor's manual for the adolescent coping with stress course (CWS-A)* developed by Clark and Lewinson (1995) as preventative type intervention for youth at risk of developing depression. In the literature review, multiple studies have used this manual and have modified it to their particular population based on the needs of the population that received the intervention. In the study by Listug-Lunde et al., (2013), the CWD-A was modified for the American Indian adolescent population.

### **Specific Depression Prevention Programs**

School administrators, educators, community mental health professionals and other members of the community were asked to give their input regarding the modification of the manual for the American Indian population Listug-Lunde et al. (2013). The CWD-A was modified to Talk n Time for rural female adolescents (Noël et al., 2013). The social network of the rural adolescent population is crucial for their wellbeing. The Talk n Time was designed to strengthen and improve female adolescents ability to build solid social networks with their peers (Noël et al., 2013).

Pare-Chocs is a depression prevention program, also based on the CWD-A manual with modification to address youth that were at risk of school drop-out (Poirier et al., 2013). This intervention was focused on emotional education. The intervention helped participants to increase their engagement in pleasant activities. The program taught participants social, communications and problem solving skills. This program proved to be effective in reducing depressive symptoms and preventing school drop-out (Poirier et al., 2013).

The Penn Resilience Program is another program based on the CBT concepts that have been studied extensively. Challen et. al. (2014) and Wijnhoven et al. (2014) designed preventative interventions based on the Penn Resilience Program. Wijnhoven et al. (2014) tested the effectiveness of the program as a treatment for female adolescents with subclinical levels of depressive symptoms. Challen et al. (2014) tested the effectiveness of Penn Resilience Program for a universal level of prevention with participants ages 11 and 12. This was the largest study with 2,844 participants from 16 schools. Teachers were the main facilitators of the universal this intervention program (Challen et al., 2014). The Penn Resilience Program has shown good effect in universal and non-universal level of preventions.

### **Conclusion**

The prevalence of depression in the adolescent population is increasing at near pandemic levels. The conventional methods of treatment are not adequate to address the significantly high numbers of individuals who will experience depression in their lifetime. The onset of depression usually occurs during the childhood or adolescent years and puts individuals at risk for developing

depression during their adult years. Preventative methods to treat depression in all levels, universal, selective and indicated are the best way to address this issue.

Schools are the best setting to implement preventative type of services. Staff members such as counselors, psychologist, social workers and educators are in the best position to receive training and support, to implement school-based preventative services at the universal and non-universal levels. The first step in the process of initiating mental wellness programs in the schools will require a commitment from the school administrators and stakeholders.

Teachers and other school staff are increasingly interested in acquiring knowledge and skills about ADP methods; they need the support from school based mental health providers. The first step to initiating any preventative methods in the school settings is to inform school administrators about the necessity of ADP services. School administrators need information about the importance of providing their staff with educational programs to increase their knowledge about ADP methods.

The current evidence supports preventative services in the school settings with the support of the administrators and agreement from the parents. School administrators may start the process with getting parental consents and by providing parents with information about the mental health services they offer in the school settings. The services should include screening methods such as the RADAR to assess for youth at risk who are pre-symptomatic.

Screening methods that assess for symptoms of depression, such as the PHQ2 and PHQ9, are also available in the adolescent versions. Youth who score in five or higher on

the PHQ9 may be evaluated further by a mental health professional to rule out a possible diagnosis of depression. Also children and adolescent who endorse thoughts about self-harm, harm to others, suicide or homicide, should be given the most appropriate referrals, based on their level of risk. If the child or adolescent is at an imminent danger to self or others, emergency response should be in place and they should be transferred to the nearest emergency room. Children and adolescents who have chronic issues with thoughts of harm to self or others should be given appropriate referrals to mental health providers as treatment or interventions that are school based, may not fully address their higher level of need for treatment.

The screening methods for depression should be included in the yearly medical physical requirement that schools already have in place. Based on the results of the screenings, the school administrators should collaborate with mental health providers, parents and community members about the best ways to implement interventions that are most appropriate for the adolescent population in their schools. The *Adolescents Coping with Stress* manual is a good source to utilize as a foundation to plan and design an intervention that is customized. The Penn Resilience Program offers training programs that school staff may attend, to learn how to implement the intervention in the school settings (“Resilience In Children,” 2018).

The Beck Institute for Cognitive behavior Therapy is the pioneer in the CBT training and offers ongoing educational seminars to therapists and non-therapists. The online courses do not require participants to be mental health providers. In order to attend the live courses, attendees must be professionals with active licenses as mental health providers (“The Beck Institute,” 2016).

Research is underway to study the impact of school based mental health services. A United Kingdom based organization, The Child Outcomes Research Consortium (CORC) has developed screening method for schools that analyzes the mental health status of the school's entire student body ("Child Outcomes Research Consortium," n.d.).

The Child Outcomes Research Consortium (CORC) is the United Kingdom's leading membership organization that collects and uses evidence to improve children and young people's mental health and wellbeing. CORC has over a decade of experience in measuring and monitoring children and young people's mental health and wellbeing. Their team of mental health measurement experts can support schools, colleges and other education providers to measure the impact of the social, emotional and wellbeing support they provide. There are a number of ways the organization works with schools and their staff members to effectively measure and monitor children and young people's mental health and wellbeing ("Child Outcomes Research Consortium," n.d.).

Starting in the 2018/19 academic year, the organization will be supporting schools and colleges to use the Wellbeing Measurement Framework (WMF), a set of validated measures assessing children's emotional wellbeing, mental health issues, coping strategies and risk and resilience factors, via a secure, online survey. Participating schools will be able to access reports and analyzing their survey responses ("Child Outcomes Research Consortium," n.d.).

This level of assessment and screening will help school administrators to obtain statistics regarding students in their schools who are at risk. A broad analysis of schools will aid administrators in allocating services and funds to improve their student's wellbeing and mental health.



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Appendix A  
Presentation Outline and Resources

**Disclaimer: This Manual is intended for use by licensed mental health professionals to train other school staff. It is not intended to replace any standard of care for adolescents in the school settings.**

**The outline of the Toolkit presented with a power point presentation:**

1. Background information; depression in the adolescent population with statistics about the prevalence in the general population and the adolescent population.
2. A description of how depression will manifest in the adolescent population.
3. List of the different types of screenings, such as the RADAR, which assesses for adolescents at risk for mental illnesses. The PHQ2 and the PHQ9, which screens for depression and the level of depression.
4. The different levels of depression-mild, moderate and severe.
5. Safety consideration of screening for depression in the adolescent population.
6. The importance of screening and preventing suicide in the adolescent population.
7. This information was followed by preventative methods that are evidence based.  
  
The three different types of preventions, which are the indicated, selective and universal, were discussed. The RADAR, PHQ2 and PHQ9 were discussed in the context of the three types of preventative methods.
8. Pharmacologic and non-pharmacological ways of treating depression, such as cognitive behavioral therapy were discussed.
9. The concept of cognitive behavioral therapy was described and its usefulness in

the school setting was discussed based on the literature about CBT as a method of prevention in the school settings.

10. List of resources.

## Resources

### Screening Tools

1-Child Outcomes Research Consortium. (n.d.). Retrieved from <https://www.corc.uk.net>

2-(RADAR-Youth Risk Assessment Tool)

MACQUARIE University: Resources (n. d.). Retrieved from

<https://www.mq.edu.au/research/research-centres-groups-and-facilities/healthy-people/centres/centre-for-emotional-health-ceh/resources>

3- (PHQ-2 and PHQ-9-Assessing for Depressive symptoms)

Maurer, D. (2012). Screening for depression. *American Family Physician*, 85(2), 139-

144. Retrieved from <https://www.aafp.org/afp/2012/0115/p139.html>

4-(Columbia Suicide Severity Rating Scale (C-SSRS))

The Columbia Lighthouse Project: Identity Risk. Prevent Suicide. (2016). Retrieved from

<http://cssrs.columbia.edu/the-scale-in-action/schools/>

### Manuals

Kaiser Permanente Center for Health Research: Download Site for Youth Depression Treatment & Prevention Programs. (2015). Retrieved from <https://research.kpchr.org/Research/Research-Areas/Mental-Health/Youth-Depression-Programs>

### Training Websites and Videos

- 1- Beck Institute for Cognitive behavior Therapy: CBT Training for Organizations. (2016). Retrieved from <https://beckinstitute.org/get-training/training-for-organizations/#who-benefits>
- 2- For Educators. (2018). Retrieved from <https://childmind.org/audience/for-educators/>
- 3- National Institute of Mental Health: Transforming the Understanding and Treatment of Mental Illness. (2017, November) Retrieved from [https://www.nimh.nih.gov/health/statistics/major-depression.shtml#part\\_155031](https://www.nimh.nih.gov/health/statistics/major-depression.shtml#part_155031)
- 4- Resilience In Children: The Penn Resilience Program For Middle School Students. (2018). Retrieved April 5, 2018, from <https://ppc.sas.upenn.edu/research/resilience-children>
- 5- Reivich, K. (2008, July 11). Resilience 4 Kids presents R4Power [Video File]. Retrieved from <https://www.youtube.com/watch?v=5YVwoKA5kPI>
- 6- Posner, K. (2013, October 8). C-SSRS training video [Video File]. Retrieved from [https://www.youtube.com/watch?v=Xfddz\\_Yfnc4](https://www.youtube.com/watch?v=Xfddz_Yfnc4)
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**Books**

- 1- Beck, J.S. (2011). *Cognitive-behavioral therapy: Basics and beyond* (2nd ed.). New York: Guilford Press.
- 2- Creed, T.A., Reisweber, J., & Beck, A.T. (2011). *Cognitive therapy for adolescents in school settings*. New York: Guilford Press.
- 3- Mennuti, R.B., Christner, R.W., & Freeman, A. (Eds.). (2012). *Cognitive-behavioral interventions in educational settings: A handbook for practice*. New York: Routledge.
- 4- Rollnick, S., Kaplan, S. G., & Rutschman, R. (2016). *Motivational interviewing in schools: Conversations to improve behavior and learning*. New York, NY, US: Guilford Press.
- 5- Sheldon, L. A. (2010). Using Motivational Interviewing to Help Your Students. *Thought & Action*, 153-158.

Appendix B  
IRB Approval Letter



University of Massachusetts Amherst  
Human Research Protection Office  
Mass Venture Center  
(413) 577-1728 100 Venture Way, Suite 116

**Office of Research Compliance**  
voice: (413) 545-3428  
fax:

Hadley, MA 01035

MEMORANDUM – Not Human Subject Research Determination

Date: October 20, 2017  
To: Avesta M. Khursand, Nursing

**Project Title: *Adolescent Depression Prevention Toolkit***

**IRB Number: 17-187**

The Human Research Protection Office (HRPO) has evaluated the above named project and has made the following determination based on the information provided to our office:

- The proposed project does not involve research that obtains information about living individuals.
- The proposed project does not involve intervention or interaction with individuals OR does not use identifiable private information.
- The proposed project does not meet the definition of human subject research under federal regulations (45 CFR 46)>

Submission of an IRB application to University of Massachusetts Amherst is not required.

**Note: This determination applies only to the activities described in the submission. If there are changes to the activities described in this submission, please submit a new determination form to the HRPO.**

Please do not hesitate to call us at 413-545-3428 or email [humansubjects@ora.umass.edu](mailto:humansubjects@ora.umass.edu) if you have any questions.

Iris L. Jenkins, Assistant Director  
Human Research Protection Office