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Article

Self-efficacy and the promotion of health for depressed single mothers

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ABSTRACT

Single mothers are a vulnerable population at risk for poor mental and physical health. This paper discusses the mental and physical health of single mothers, as well as the psychosocial and socio-economic risk factors placing single mothers at risk for poor health outcomes. Some of these include, gender, income level, educational status, social support, stress and certain personality characteristics. Theoretical models with the potential to explore ways to promote health in depressed single mothers will also be presented. The paper concludes with the application of these models to primary prevention and the promotion of health for single mothers along with recommendations for future research.

Keywords: health outcomes, health promotion, single mothers

Introduction

Depression is defined as both a mood disorder and a syndrome of symptoms. As a disorder, it is characterised by disturbances in mood and thoughts, subjective negativity, somatic disturbances, and a desire for self-harm and social withdrawal.[1–5] The more specific signs and symptoms of this syndrome include dysphoria, helplessness, hopelessness, apathy, guilt, lack of concentration, somatic complaints, poor concentration and sleep disturbances.[2,6–10] Those diagnosed with clinical depression have symptoms for at least two weeks which cause significant impairment in social and/or occupational functioning.[6]

Depression is a multidimensional, heterogeneous condition affecting 14.8 million Americans and about 121 million people worldwide.[11] This condition negatively impacts physical health, quality of life and psychosocial functioning and may even lead to disability and death for some sufferers.[12–17] Depression is also recognised in nursing as a human response to stressors, with the potential to adversely affect health outcomes.[18,19] This is why nurses and other healthcare scientists have developed theories and models which describe, explain and predict depression with the hope of improving the recognition and treatment of depression while curtailing the negative health consequences.[3,20–22] These models, however, do not always address the promotion of health and prevention of bad health consequences in those with chronic illnesses like depression.

Several health promotion models produced by scientists from different fields present factors influencing health behaviour and provide a framework for understanding health habits and sustained behaviour change.[23–25] These models can be applied in order to understand the health promotion needs of depressed single mothers. Depression is prevalent among single mothers and produces negative psychosocial and health outcomes for these mothers, their children and their families.[26–29] Despite these facts, depression is poorly identified and treated in single mothers.[30–32] Although these mothers are identified by healthcare agencies as a vulnerable population at risk for poor health[33,34] there is limited research and theory which addresses their health promotion needs and the factors influencing their health status. This paper will examine the factors influencing the health promotion needs, health habits/practices and health status of depressed single mothers by presenting health promotion models which address factors impacting

the health behaviour and health status of this group. The application of some of these models in the promotion of health and the initiation and maintenance of behaviour change in depressed single mothers will be discussed. An additional model will also be proposing to address the factors uniquely predicting depression and health promotion practices in depressed single mothers. The application of these models can ultimately promote the early detection, recognition and treatment of depression, while promoting good health and preventing relapse/recurrence of depressive symptoms in this unique population.

Health promotion: models and theories

Health promotion focuses on increasing levels of wellbeing by increasing activities which result in improved health, optimised functional ability and better quality of life throughout the lifespan.[24,35] Health can be promoted in those with chronic illnesses by focusing on increasing levels of wellness and optimising functioning. Depression is a condition in which the duration of symptoms may be transient and temporary without recurrence, or episodic, taking a chronic course with periods of remission and relapse.[36]

Health promotion in chronic illnesses like depression must therefore involve increasing activities which reduce the occurrence of depressive symptoms, improving tolerance of symptoms when they occur, optimising level of wellness, promoting coping via normalisation and minimising disability.[35,37,38] Health promotion in depression must therefore involve strategies which can be effectively applied throughout the person's life. Some of the health promoting goals and activities should include the following:

1 Effective illness self-management. Adherence to therapeutic regimens (medication and therapy).[37]
2 Effective symptom management. Symptom prevention, recognition, and intervention.[37]
3 Being proactive in making choices to improve functional capacity, wellbeing and quality of life while preventing relapse.[37]

Health behaviours in chronic illnesses like depression are influenced by internal and external variables which predict the likelihood of performing behaviours which promote health. Some of these variables include:[35,39]

- perception of seriousness of symptoms
- frequency of symptoms
- visibility of symptoms
- degree of disruption of normal routines
- coping skills
- perception of control
- cultural/ethnic background
- economic variables
- access and proximity to healthcare services
- social support
- health and illness beliefs.

Models and theories predicting health promotion behaviours in depression must therefore incorporate the influence of these variables on health behaviours. Appropriate health promotion models for depression need to address factors which influence self-management of depressive episodes. These models would also need to address management of symptoms and prevention of depression relapse, both of which are necessary in order to optimise functioning and improve quality of life for depressed people. Some models have tried to address these variables and these models will be discussed next.

Theories/models applicable to depression

Pender's Model

This model addresses both internal and external variables influencing health behaviours including individual characteristics and experiences, behaviour-specific cognitions and affect and immediate competing demands. These variables interact with one another and determine a person's commitment to a plan of action which will probably result in the performance of the health promoting behaviour. Risk factors for depression in single mothers, which will be discussed later, are also embedded within many of the variables of Pender's Model. One construct in the model is termed 'perceived self-efficacy', or judgement of one's personal ability to carry out a particular course of action. This concept falls under the behaviour specific cognitions, proposed to influence behaviour change both directly and indirectly by influencing perceived barriers to action in this model.[40] Self-efficacy beliefs appear to be particularly influential in determining behaviour in the depressed, as depression and its accompanying sequelae are potential cognitive barriers to participation in health promoting behaviours which are addressed by the model. As proposed by Bandura,[41] the higher the perceived self-efficacy, the more vigorous and persistent will be the effort to perform

a behaviour, even when faced with obstacles and aversive experiences which serve as impediments, determining health habits.[42]

Social cognitive theory

Social cognitive theory posits that human behaviour is dynamic and influenced by the interaction of internal and external forces and humans' interactions with their environment. It particularly emphasises the global influence of perceived self-efficacy, which affects health habits directly by impacting goal setting, expectations concerning outcomes, and perception of socio-structural supports and obstacles to health promoting behaviours.[41,42] Self-efficacy theory also posits relationships between depression, self-efficacy and other concepts embedded within the model constructs which interact with one another to influence health behaviour. This theory proposes relationships between depression, self-efficacy, social support, stress, control, self-esteem, parenting, health and other concepts impacting on behaviour.

These propositions are as follows:

Self efficacy, stress and depression

1 An **efficacious outlook** reduces **stress** and lowers vulnerability to **depression**.
2 People who doubt their **capability (low efficacy**) easily fall victim to **stress** and **depression**.
3 **Positive mood** enhances **self-efficacy**, **despondent mood (depression**) diminishes it.
4 People's beliefs in their **coping capabilities (coping efficacy**) affect how much **stress** and **depression** they experience in threatening or difficult situations.
5 Perceived **self-efficacy to control thought processes** is a key factor in regulating thought-produced **stress** and **depression**.
6 People who are **socially efficacious** cushion the effects of **chronic stressors** by cultivating **social relationships**.
7 **Self-efficacy** can be modified by reducing **stress**
8 Beliefs about **coping capabilities (coping efficacy)** affect how much **stress** and **depression** they experience.
9 Inability to **control stressors** impairs immune function.

Self-efficacy, depression and social support

1 Low sense of **social efficacy** is a second route to **depression**.
2 Perceived **social inefficacy** to develop satisfying and supportive relationships increases vulnerability to **depression** through **social isolation**.
3 A route to **depression** is through low sense of **social efficacy**.
4 **Socially efficacious** persons cultivate social relationships that cushion the adverse effects of **chronic stressors**.

Self-efficacy, depression and control

1 A low sense of **efficacy to exercise control** produces **depression** via unfulfilled aspiration.
2 Low sense of **efficacy to exercise control over ruminative thoughts** contributes to the occurrence, duration, and recurrence of **depressive episodes**. Human **depression** is cognitively generated by **ruminative thoughts**.
3 Perceived **self-efficacy to control thought processes** is a key factor in regulating thought-produced **stress** and **depression**.
4 The **non-depressed** believe that they have **control** over situations.

Self-efficacy and socioeconomic factors

1 The higher the **perceived self-efficacy** the wider the range of **career options** considered.
2 The higher the **perceived self-efficacy** the better one prepares themselves **educationally** for occupational pursuits.

Self-efficacy, depression and self-esteem

1 Standards of **self-worth** deemed unattainable **(low-self esteem**) drives people into bouts of **depression**.
2 People who **doubt their capabilities** and dwell on personal deficiencies **(low self-esteem**) are slow to recover their sense of efficacy following failure so fall easy victim to **stress** and **depression**.

Self-efficacy and goals, achievement, success and other variables impacting health promotion

1 The stronger the **perceived self-efficacy** the higher and more challenging the **goals s**et.
2 An optimistic **sense of personal efficacy** is required for human **accomplishments**.
3 **Perceived self-efficacy** affects **change, motivation** to persevere, and maintenance of change.
4 A robust sense of **personal efficacy** is needed to **persevere** and **succeed**.
5 Those with high **self-efficacy** visualise **success.**
6 A **resilient sense of efficacy** contributes to **accomplishments** and allows people to withstand difficulties and adversities without adverse effects.
7 **Self-efficacy beliefs** play a key role in **self-regulation** of motivation.

8 **Causal attributions** affect **motivation**, and performance through beliefs of **self-efficacy**.
9 Personal **goal setting** is influenced by **self-appraisal capability (efficacy**).

Self-efficacy, depression and parenting

1 Parents who lack of **sense of efficacy** to manage expanded familial demands are highly vulnerable to **stress** and **depression** and suffer **physical and emotional strain**.
2 Women who have a **strong sense of efficacy to manage** multiple family and work demands experience a positive sense of **wellbeing**.

Self-efficacy and health

1 **Perceived self-efficacy** serves to **promote health**.
2 **Perceived self-efficacy** improves health via **enhanced immune function** and participation in **positive health practices** and **positive lifestyle habits to enhance health**.
3 The stronger the **perceived self-regulatory efficacy** the more successful people are in adopting and integrating **health-promoting habits** into their **regular lifestyle**.
4 An optimistic sense of **personal efficacy** is required for **positive wellbeing**.[42,43]

There are other models developed by other scientists which propose relationships between depression and other concepts similar to the ones presented in social cognitive theory. Comparisons of these propositions will be presented next.

Theories/models of depression

Hopelessness/helplessness

- This model posits that the core elements of **hopelessness**, which include: 1) that highly valued **outcomes** will not happen and 2) that one is too helpless to affect the likelihood of occurrence of valued **outcomes**, are a proximal sufficient cause of **depressive symptoms.**[20] This is similar to the self-efficacy proposition which states that behaviour change is a function of **efficacy** and **outcome expectations.**[41,42]
- Depression results from consistently negative inferential/personality/attributional styles in which individuals attribute negative events *to internal and global causes* and attribute **positive events** to **external unstable causes.**[44,45] The self-efficacy proposition states that those who doubt capabilities dwell on personal deficiencies and view **insufficient performance** as **deficient aptitude**. Self-efficacy beliefs influence causal attribution, **inefficacious** people **attribute their failure to low ability.**[43]
- Expectations about the **lack of control** over events lead to **depressive episodes.**[46] The self-efficacy proposition states that a low sense of **efficacy to exercise control** produces **depression.**[43]
- **Negative appraisal of worth (low self-esteem**) is proposed to contribute to **hopelessness** and subsequently to **depressive symptomatology.**[20] The self-efficacy theory states that in negative **appraisals of self-efficacy**, people who harbour **self-doubts** about their capabilities **give up quickly** and people who don't attain their own standards of **self-worth** drive themselves to bouts of **depression.**[43]

Some of the proposed relationships are depicted in the Hopelessness Model (Figure 1).

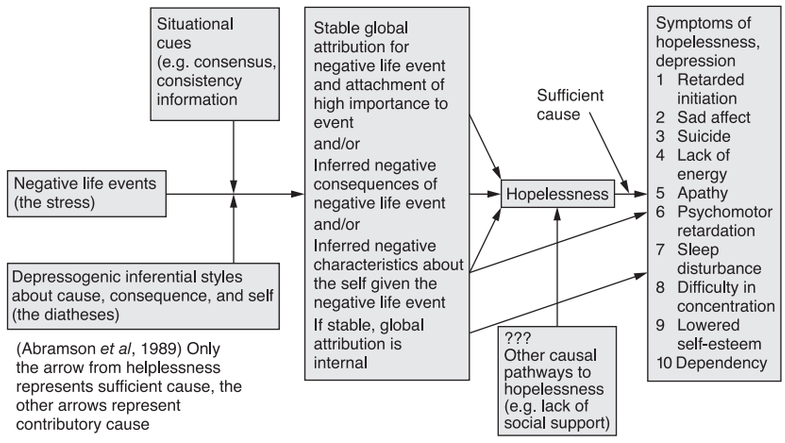

Figure 1 Hopelessness model of depression (Reproduced with permission)

Cognitive theory of depression

- **Negative thought processes** produce dysfunctional cognitive products such as negative **automatic thoughts**, **negative views about the self**, the world and the future (cognitive triad), **cognitive errors** and distortions, **negative appraisals** and **negative constructions** and perspectives, ultimately leading to **depression.**[3,46] The self-efficacy proposition states that a **low sense of efficacy to exercise control over ruminative thoughts** contributes to the occurrence, duration and recurrence of **depressive episodes.** Human **depression** is cognitively generated by **ruminative thoughts**. **Perceived self-efficacy** to control **thought processes** is a key factor in regulating thought-produced stress and **depression.**[43]
- **Negative automatic thoughts**, negative views about the self (**low self-esteem**), the world and the future (cognitive triad) and negative appraisals ultimately leading to **depression.**[3,47] The self-efficacy propositions state that people who doubt their capabilities and **dwell on personal deficiencies (low self-esteem)** are slow to recover their sense of efficacy following failure so fall easy victim to stress and **depression**, and **negative appraisals** of self-efficacy.[43] Some of the proposed relationships are depicted in the model in Figure 2.

The close similarities between the concepts and proposed relationships in social cognitive theory and other models predicting depression confirm the appropriateness of applying self-efficacy in the promotion of health for depressed single mothers. Enhanced self-efficacy beliefs are posited to directly and indirectly impact on health behaviours by influencing goals, outcome expectations and perception of socio-structural facilitators and impediments to behaviour change. Depression, its chronic trajectory, accompanying sequelae and risk factors are potential impediments to health promotion in single mothers. Those with low self-efficacy are prone to the development of depressive symptoms. These symptoms in turn serve as impediments to positive health goal setting, which according to this model could decrease participation in positive health behaviours. It is clear to see that this model addresses goals in general. Therefore any other goal which may be unrelated to health but may still indirectly affect health practices may also be affected by depression. These practices could include such things as searching for a good job with good health benefits, obtaining an education which would ensure a good job, and even the goal of being optimistic about participating in positive health practices. It is clear to see that self-efficacy beliefs have a global impact on health by impacting on participation and the potential for participation in health promoting behaviours. These effects are depicted in the socio-cognitive causal, self-efficacy model in Figure 3.[42]

Depression and single mothers

Depression disproportionately affects women. Nearly twice as many women are likely to be affected by depression – estimates show that 5.8% of men but 9.5% of women worldwide will experience a depressive episode in any given year.[11,48,49] Empirical studies also show high prevalence of depression in single mothers as evidenced by the following findings:

- Several authors have found that single mothers were more likely to have suffered an episode of depression than married mothers in a secondary data analysis of a National Population Health Survey derived from the general sample of women. Single parents were two to three times more likely than married mothers to seek help for psychiatric disorders.[50,51]

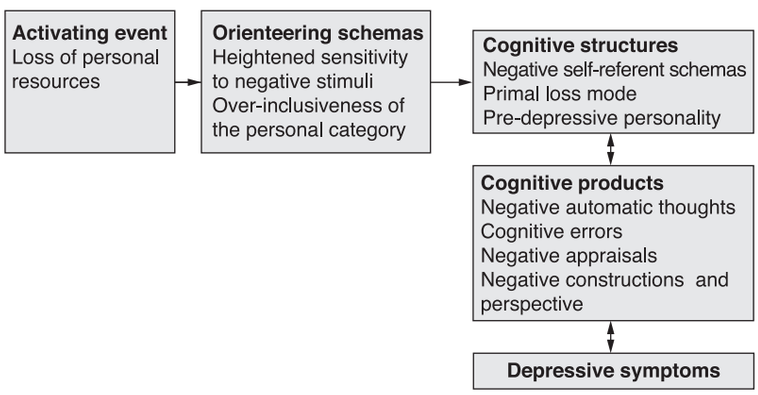

Figure 2 Cognitive theory of depression (Reproduced from Clark DA, Beck AT and Alford AB (1999) *Scientific Foundations of Cognitive Theory and Therapy of Depression*. New York: John Wiley & Sons Inc. Reprinted with permission of John Wiley & Sons Inc.)

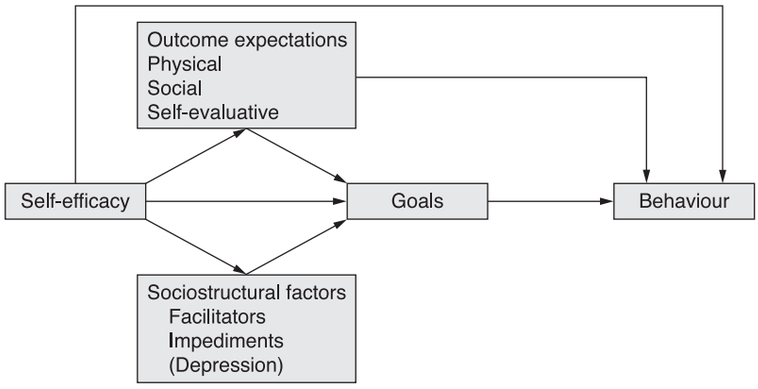

Figure 3 Sociocognitive causal model (Reproduced from Bandura, 2004 with permission of Sage Publications)

- Single mothers were found to be significantly more depressed than single fathers in another survey of families and households of 626 custodial mothers and 100 custodial fathers.[52]
- Single mothers reported higher lifetime and one-year prevalence rates of depression than married mothers, regardless of whether or not they were never married, separated or divorced.[53]
- Risk of onset of depression doubled for single mothers as opposed married in a sample of 404 single and married mothers in north London.[54] Single mothers were more depressed than other groups.[55]
- Single mothers reporting more depression than partnered mothers.[56]
- There is a high prevalence of depression in single mothers receiving welfare benefits.[31]
- Single marital status related to higher depressive symptoms in single mothers with postpartum depression.[57]

These findings evidently show that single mothers represent a vulnerable population particularly at high risk for depression. This is partly due to the fact that single mothers have a disproportionate number of the demographic, psychosocial and personal characteristics predicting depression according to the models discussed. These characteristics are also associated with depression in self-efficacy theory and include the following:

- **Female gender** Women are twice as likely as males to have depression.[48]
- **Stressful life events** Single women report higher levels of housing, health, social, financial and chronic stressors than their married counterparts.[58] Single mothers have greater exposure to ongoing financial strain, stresses of care giving and other sources of stress than other mothers.[59,60]
- **Limited social support** Single mothers reported lower levels of perceived social support than married mothers.[30,51,56,61,62]
- **Poverty or being in a lower socioeconomic group** Single mothers have disproportionately higher poverty rates than single father: 7.5 million children born to single mothers live in poverty, and in one study 65% of homeless families were female headed.[63–65] Single mothers are twice as likely to have financial hardship as married mothers,[54] and low income is associated with a higher level of depressive symptoms in single mothers.[57] Single mothers live in poverty, with 43% of children born in female headed households being poor compared to only 21.3% of children born to male households.[63]
- **Lower maternal education** A high rate of depressive symptoms is associated with less education in depressed single mothers.[61] Lone mothers report having received less education than partnered mothers.[62] Low maternal education correlates with elevated depressive symptoms.[66]
- **Low self-esteem and being overly dependent, self-critical or pessimistic**[67] Low self-esteem is a significant predictor of depression,[68] and is common among depressed single mothers.[69] Statistically significant inverse relationships are found between depression and self-esteem and depression and negative thinking in single mothers.[70]
- **Having recently given birth** Risk for postpartum depression.[61,67]

Health and single mothers

Most if not all of these risk factors for single mothers negatively impact on health in women because they

are associated with decreased access to and utilisation of health care, poorer health, increased mental health problems and lower performance of health promoting behaviours.

The US Department of Health and Human Services has compiled women's health statistics from the years 2000 to 2007 and has published them for review in September of 2009 on the Women's Health USA website.[71] The risk factors for depression prevalent in single mothers place them at risk for poor health as evidenced by the following published statistics.

Economic status and women's health practices and outcomes

- The number of women without health insurance rose by 13.8% from 2000 to 2005.[72] People who are uninsured are less likely than those with insurance to seek health care, which can result in poor health outcomes and higher healthcare costs.
- In 2007, only 10% of women reported participating in adequate physical activity and in women aged 25 years and older, those with higher incomes are more likely to engage in adequate physical activity than those with lower incomes.
- Self-reported health status improves with income. Women with incomes less than 100% of the poverty level were least likely to report excellent or very good health (42.2 and 47.6%, respectively), compared to about 60% of women with incomes of 200–299% of the poverty level and 73% of those with incomes of 300% or more of the poverty level.
- Among women, obesity was lowest among those with higher incomes. More than 40% of women with household incomes below 200% of the poverty level were obese, compared to 31.6% of women with incomes of 300% or more of the poverty level and 33.6% of those with incomes of 200–299% of the poverty level.
- Nearly half of women with household incomes below 100% of the poverty level reported their teeth to be in fair or poor condition, while fewer than one-quarter reported excellent or very good oral health. In comparison, nearly half of women with incomes of 300% or more of the poverty level reported that their teeth were in excellent or very good condition.[71]
- Frequent depression and anxiety among women decreases as household income increases.[71]

Gender and women's health practices and outcomes

- In 2005–2006, 63% of women exceeded the recommended maximum daily intake of saturated fat, 68% of women exceeded the recommended maximum intake of less than 2300 mg/day of sodium (about one teaspoon of salt), fewer than one-quarter of women met or exceeded the recommended adequate intake (AI) for calcium and only 32.8% of women consumed the recommended dietary allowance (RDA) for folate (400 mcg/day).
- Women were overall slightly more likely than men to have diabetes.
- Women represented two-thirds of users of mental health services, including inpatient and outpatient care and prescription medications in 2007.
- Nearly 7% of women and 3.1% of men reported an unmet need for mental health treatment or counselling in the past year. Cost or lack of adequate insurance coverage was the most commonly reported reason for not receiving needed services.[71]

Educational level and health practices and outcomes

- The likelihood of being a current cigarette smoker declines as a person's level of education increases. In 2006, women aged 25 years and older with less than a high school diploma were most likely to smoke cigarettes (26.0%), while only 7.2% of those with a college degree or higher did so.
- Satisfaction with how well doctors communicate varies by education level; women with higher levels of education are more likely to be satisfied.[71]

Health and depressed single mothers

The results above have been reported for women in general. However, evidence of the negative impact of these variables is present in depressed single mothers. The influence of these variables coupled with the high prevalence of depression actually places these mothers at even greater risk for poor health. Symptoms of depression cause decreases in the motivation and drive necessary to engage in health-promoting behaviours. Some of these symptoms include feelings of dysphoria, hopelessness, helplessness, low-self esteem, apathy, fatigue, decreased concentration, psychomotor retardation,

insomnia and guilt. Depression in general negatively impacts on physical health, psychosocial functioning and quality of life and is associated with disability, increased morbidity and mortality from medical illness, poor self-care and decreased adherence to medical regimens.[29,73–75] These effects are evident in depressed single mothers as well.

Empirical studies reveal that depression in single mothers is associated with the following negative health behaviours and outcomes:

- non-adherence to self and child therapeutic regimens[29,76,77]
- decreased participation in preventive practices[78]
- depressed mothers report poorer wellbeing and perception of health status than non-depressed, including more wheezing and major depressive episodes[79]
- poorer health as evidenced by increased blood sugars, more hypertension, increased cholesterol, decreased peak flow, less physical functioning and more smoking in poor single mothers leaving welfare[80,81]
- continuously married mothers were found to be in better health mentally and physically than unmarried mothers one year after birth[82]
- single mothers more likely to be smokers than partnered or married mothers[57,83,84]
- single mothers found to have poorer health than married mothers as evidenced by higher HgbA1C, more hypertension, higher body mass index, more obesity, higher cholesterol, lower peak flows, less physical functioning, more obesity, more diabetes and elevated C-reactive protein levels than married and partnered mothers.[62,85]

It is clear that depressed single mothers are a vulnerable population at risk for adverse health outcomes. Clearly models are needed which address the health promotion needs specific to these mothers. These models will help to predict health promoting behaviours for these women and will help healthcare providers find modalities to promote health and prevent disability in these mothers. There is much empirical support for the use of social cognitive theory and self-efficacy in describing the interaction of the variables and relationships proposed in the theory.

Risk factors for depression prevalent in single mothers also interact with self-efficacy to mediate or moderate the various relationships proposed. This empirical support will be discussed next.

Self-efficacy and health promotion for depressed single mothers: empirical support

Strong empirical support for the propositions in social cognitive theory related to depression in single mothers is abundant in the literature. The research supports the direct and reciprocal interaction of risk factors with one another, with depression and with self-efficacy in single depressed mothers. All of these studies were conducted with depressed single mothers and the results are as follows.

Propositions: empirical support

DEPRESSION AND SELF-EFFICACY

Inverse relationship between depression and self-efficacy.[63,86]

SOCIOECONOMIC STATUS AND SELF-EFFICACY

- Higher self-efficacy predicting higher employment.[87,88]
- Self-efficacy mediated the negative impact of low education, income and employment.[89]

SOCIAL SUPPORT AND SELF-EFFICACY

Higher self-efficacy contributed to more social support.[90]

STRESS AND SOCIAL SUPPORT AND SELF-EFFICACY MEDIATOR OR MODERATOR

- Inverse relationship between social support and stress, influenced by self-efficacy.[91]
- Stress and social support mediating the relationship between single parent status and depression.[92]

DEPRESSION AND SOCIAL SUPPORT

- Inverse relationship between depression and social support.[56,61]
- Social support predicting depression.[30,54]
- Social support associated with depression.[56]

DEPRESSION AND SOCIOECONOMIC STATUS

- Inverse relationship between depression and employment.[58,87,89,90]

- Depression associated with low income.[57,65,91]
- Depression associated with financial hardship.[69]
- More depression with lower educational level.[61]

SOCIAL SUPPORT AND SOCIOECONOMIC STATUS

Positive relationship between income and social support.[89]

STRESS AND DEPRESSION

- Stressful events predicting depressive symptoms.[59]
- Stress (negative life events and depression) predicting depression.[58,26]

CONTROL AND DEPRESSION

Increase control inversely related to depression.[93]

SELF-ESTEEM AND DEPRESSION

- Poor self-esteem predicting depression.[54,65,68]
- Inverse relationship between self-esteem and depression.[70]

SELF-ESTEEM AND EMPLOYMENT

Inverse relationship between self-esteem and employment.[89]

STRESS AND SOCIOECONOMICS

Stressful events associated with decreased employment.[58]

DEPRESSION AND HEALTH

- Health limitations predicting depression.[30]
- More depressive symptoms, more functional limitations and symptom burden.[61]
- More depressive symptoms with past history of depression.[61]

DEPRESSION AND RACE

More depression in non-white races.[61,91]

The combined impact of socio-demographic and personal risk factors coupled with depression clearly makes depressed single mothers vulnerable to negative health outcomes. The evidence shows that improving self-efficacy in depressed single mothers will help to promote positive health and behaviour change because it addresses all factors influencing the health of depressed single mothers. In addition, depressive symptoms can be minimised by enhancing self-efficacy, as many studies show. Application of self-efficacy theory therefore holds promise in addressing the factors influencing positive health habits and behaviour change for depressed single mothers.

An additional health promotion model

Though the self-efficacy model depicts factors leading to behaviour change in general, it does not fully capture the interaction of the factors uniquely predicting health promotion in depressed single mothers. An ideal model for single mothers should be holistic and show the direct and reciprocal relationships between depression, self-efficacy and other variables impacting the health of single mothers with depressive symptoms. An ideal model would also have the following characteristics:

- be rooted in depression and health promotion theory and research[94–97]
- incorporate the impact of demographic, environmental and socio-cultural risk factors and predictors (antecedents) of depression[25]
- address the impact of psychosocial, cultural, internal, external and environmental influences on health behaviour[24,25]
- show areas for intervention by healthcare professionals. The following model is additionally proposed for the promotion of health in depressed single mothers (Figure 4).

Application and future research

This additional health promotion model can be used as a framework for promoting health in depressed single mothers. Areas for intervention aimed at enhancing self-efficacy will reduce the financial, psychosocial and cognitive risk factors for depression in single mothers while increasing participation in health promotion activities, ultimately resulting in improved health as depicted in the model. The beginnings of this model and its subsequent revisions can also serve as the basis for the development of risk assessment tools for detecting depression in this unique population. The research shows that depression is often unrecognised and not assessed in single women by healthcare providers in the primary care setting.[94–97] Risk assessment tools can aid in screening for depression in these women.

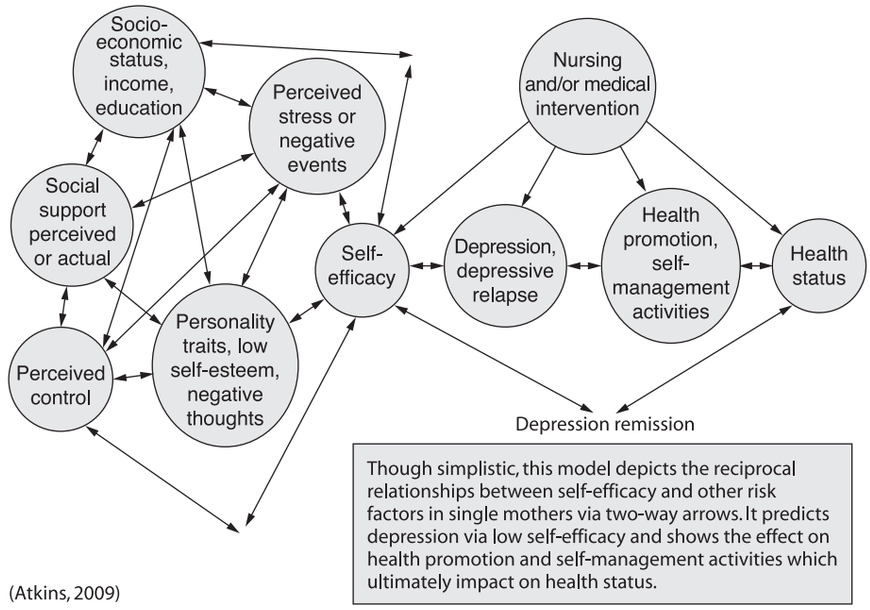

Figure 4 Proposed model

Guided by the model, these tools can incorporate questions which address social support, socioeconomic status, perceived stressors, perception of control and personality traits which can be given score ranges indicating mild, moderate or high risk for depression. This will provide for improved identification of depression and appropriate mental health referral for prompt treatment when warranted.

It is theoretically clear that single mothers are a vulnerable population at risk for depression and poor health. There is also an abundance of research linking single mothers with depression, poor physical health and decreased participation in positive health behaviours.[29,56,62,76–79,81,98] Many other studies also show that, in single mothers, parenting, socioeconomic, interpersonal and psychosocial stressors and barriers are highly correlated with depressive symptoms and poor health for these mothers.[30,50,54,57–65,69,70,98,99]

However, no studies have examined whether or not self-efficacy moderates or mediates the relationship between these life stressors and depression and between life stress and participation in positive health practices in depressed single mothers. It would also be important to ascertain the influence of self-efficacy on perception of stress and health barriers and subsequently to predict the likelihood of participation in positive health behaviours and practices in single mothers. In addition, though it has been posited that high self-efficacy promotes health directly by increasing participation in health promoting behaviours, and indirectly via its influence on perceived barriers, no studies have tested these relationships in depressed single mothers.[40]

Surprisingly, there are only a few studies which examine the relationship between depressive symptoms and self-efficacy in single mothers.[61,86] These studies have been conducted on post-partum women and in connection only with parenting children, and not in the general population.

Guided by Pender's model of health promotion and by social cognitive theory, the following research questions therefore require further examination in the general population of single mothers.

1 What is the relationship between depression and self-efficacy in single mothers?
2 Does high self-efficacy in single mothers reduce perceived health barriers and perceived stress and therefore predict participation in positive health practices for single mothers?
3 Does high self-efficacy in single mothers buffer the impact of exposure to actual life stressors and actual barriers on depressive symptoms?
4 Do single mothers with higher levels of self-efficacy report a higher degree of participation in health-promoting behaviours?
5 Do single mothers with higher levels of self-efficacy have better reported health?
6 Do single mothers with higher levels of self-efficacy have better actual health?
7 What socioeconomic and demographic variables also influence the above questions?

Answers to these questions will help to ascertain the pathway by which risk factors for depression lead to poorer perceived and actual health status in single mothers. We will more clearly understand which factors mediate or moderate the relationship between depression and health in single mothers. Healthcare providers will also be aided to promptly detect and treat depression while suggesting ways to diminish depressive symptoms in order to deter the negative physical health consequences of depression subsequently improving overall health. The answers provided will ultimately help to prevent depression in this vulnerable population.

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CONFLICTS OF INTEREST

None.

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