| Table 2. Summaries of Study Articles Included in Review | | | | | | | | |
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| **Author, year** | **Study Design** | **Purpose** | **Sample Race/ethnicity, % African American /Black** | **Sample Size, % Female** | **Age** | **SES** | **Outcome Variable(s)** | **Findings** |
| Artinian et al., 2006 | Descriptive correlational design; part of larger RCT | Test correlation between blood pressure, cardiovascular risk, stress and social support; and test if depression mediates relationship between stress and BP. | African-American,100% | 245, 100% female | Mean 61 (SD 12.7) | 57% had 12≤ years formal education | Blood pressure | Positive correlation between depression, smoking, stress, and BP; negative correlation between depression and eating vegetables and fruits and social support. Depression mediated relationship between stress and BP. |
| Braverman et al., 2009 | Cross sectional survey; part of larger RCT | Assess relationship of antihypertensive medication adherence to socio-demographic, clinical, self-efficacy, and physician and family support. | African American, 100% | 70, 70% female | 58, (SD 11) | 40% mean annual household income ≤$30,000<br><br>Mean education 12.2 years | Blood pressure, and self-reported BP medication adherence | Medication adherence significantly associated with SBP. Lower educational attainment related to higher adherence among men but lower adherence among women. |
| Cuffee, et al., 2013 | Cross sectional survey | Determine if reported racial discrimination was associated with medication adherence among African Americans with hypertension and if distrust of physicians was a contributing factor. | African American, 100% | 780, 71% female | 53.7 (SD 9.9) | 35.1% ≤high school graduate | BP Medication adherence | Racial discrimination was associated with lower medication adherence; this association was partially mediated by trust in physicians. Among women only, approximately 39% of the relationship between discrimination and medication adherence was influenced by trust compared with 28% for men. Women also reported less adherence than men (p=.018) |

| Table 2. Summaries of Study Articles Included in Review cont. | | | | | | | | |
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| **Author, year** | **Study Design** | **Purpose** | **Sample Race/ethnicity, % African American /Black** | **Sample Size, % Female** | **Age** | **SES** | **Outcome Variable(s)** | **Findings** |
| Flynn, et al., 2013 | Qualitative | Identify hypertensive patients' and family members' perceived facilitators and barriers to hypertension self-management | African American, 100% | 30, 70% female | Range 30 to 82 years (patients) ; 25 to 63 years (family member) | 93% high school or greater | Hypertension self-management | Patients and family members' barriers and facilitators didn't differ significantly. Identified facilitators to their HTN self-management at the patient, family, clinic ad community levels including faith in God, family support and positive physician relationships; barriers included difficulty sustaining self-management behaviors, long wait times for care and insufficient access to care. Family members added multilevel facilitators and barriers including lack of motivation of patient and their own health conditions. |
| Fongwa, et al., 2008 | Qualitative | Identify factors associated with adherence to hypertension treatment in African American women | African American, 100% | 20, 100% women | Range 35 to 68 years | 45% high school or greater | Adherence to HTN treatment orders including medication and physical activity | Factors associated with barriers to treatment included negative beliefs about hypertension medicine, cultural beliefs (home remedies) and psychosocial factors including depression and stress. Factors associated with facilitators included knowledge about HBP, relationship with health care provider. |
| Fongwa, et al., 2006 | Descriptive | Discuss HTN and lack of HTN control in African American women including predisposing, enabling and reinforcing factors adapted from Hill-Levine model. | African American, 100% | No sample; reviews study findings related to African American women | na | na | Adherence to treatment factors in hypertensive African American women | Identifies enabling factors including access to health care resources, health behaviors; reinforcing factors include comfort, assistance, and information perceived to be available through formal or informal contacts; instrumental and emotional social support. Predisposing factors include knowledge, beliefs, attitudes and beliefs. |

| Table 2. Summaries of Study Articles Included in Review cont. | | | | | | | | |
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| **Author, year** | **Study Design** | **Purpose** | **Sample Race/ethnicity, % African American /Black** | **Sample Size, % Female** | **Age** | **SES** | **Outcome Variable(s)** | **Findings** |
| Ford, et al., 2009 | Qualitative | Describe the perceptions of hypertensive Southern, rural African American women regarding personal and environmental factors affecting their hypertension. | African American,100% | 25, 100% female | Mean 56, (SD 8.78) | 44% high school or less; 57% annual incomes ≤$19,999 | HBP causes; HBP management | Women felt HBP was "common" in family; inevitable condition. Barriers to following doctor's treatment plan were low income, high medical expenses and lack of insurance. All women related that it was difficult to prepare healthy food. Barriers related to medication adherence included costs, dislike for taking medicine, side effects, forgetting and being tired. Barriers to exercise included being tired, busy, or lazy; the weather or unsafe environment. |
| Hekler, et al., 2008 | Cross sectional survey | Examine beliefs, behaviors, and hypertension control among African American outpatients at federally funded health center | African American, 100% | 102, 65.7% female | Mean 61.8, (SD 10.2) | Mean 10.2 years education | Hypertension management | Greater perceived severity of consequences of HTN was positively associated with stress reduction behaviors. Performance of appropriate lifestyle behaviors was associated with lower SBP but not medication adherence. Commonsense belief measures, stress reduction and medication adherence were not associated with SBP. No variable predicted DBP. |
| Houston, et al., 2011 | RCT | Test an interactive storytelling intervention using DVDs to improve blood pressure | African American,100% | 230, 71.4% female | Mean 53.7 | | Differential change in blood pressure | Intervention using DVDs invoking shared story telling was successful lowering blood pressure in intervention group compared to control group for participants with uncontrolled BP and not for the patients with controlled BP. BP subsequently increased for both groups but differences remained relatively constant. |

| Table 2. Summaries of Study Articles Included in Review cont. | | | | | | | | |
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| **Author, year** | **Study Design** | **Purpose** | **Sample Race/ethnicity, % African American /Black** | **Sample Size, % Female** | **Age** | **SES** | **Outcome Variable(s)** | **Findings** |
| Jones et al., 2009 | Longitudinal | Examine the association between cognitive, behavioral and physical stress with health promoting nutrition behaviors among African American women with or at risk for HTN. | African American, 100% (smaller study) Part of larger study using multi-racial subjects (of the 269, 153 were African American in larger study) | 117, 76% female (In larger study AA males and females n=153) | Mean 51.34 (SD 13.09) | 51.3% high school diploma or less | Health promoting nutritional behaviors (HPNB); physical, behavioral, and cognitive stress. | All correlations between stress scores and HPNB scores were significant with exception of physical stress. Physical stress and behavioral stress but not cognitive stress were significant and unique predictors of HPNB scores among African American women. |
| Konerman, et al., 2011 | Cross sectional survey | Determine whether an association exists between Short Form (SF36) Health Survey measures and non-adherence among urban African Americans with poorly controlled hypertension. | African American, 100% | 158, 58% female | Mean 51 (SD 12) | 55% finished high school or GED | HBP medication non-adherence | Perceived physical health limitations (physical component score) is significantly associated with medication adherence. Individuals with low mental health scores and high physical functioning displayed the lowest adherence rate while those with physical functioning scores below the median displayed the highest adherence rate. |
| Lewis, 2011 | Qualitative | Explore how African American older adults use spirituality to adhere to antihypertensive medications. | African American, 100% | 21, 100% female | 73.7 (range 57 to 86) | 81% high school graduate or less | Medication adherence | Cultural and spiritual believes are important influencers of medication adherence among older African American women. Five prevailing spiritual themes associated with antihypertensive medication adherence: God helps those who help themselves; God is guide, guardian, and rock and gives the ability to cope. |
| Mansyur, et al., 2013 | RCT | Explore the relationship between self-efficacy, barriers, and multiple behavior change over time in African Americans with hypertension. | African American, 100% | 185, 65% female | Mean 53.9 (SD 5.7) | NA | Adherence behaviors including smoking, exercise, diet and weight management | Barriers varied depending on behavior. Most frequently mentioned barriers to smoking were stress, habit and addiction. Most frequently mentioned barriers to increasing physical activity were acute medical conditions, outdoor temperature and being too busy. Most frequently mentioned barriers to diet were taste, time/convenience and cost. |

| Author, year | Study Design | Purpose | Sample Race/ethnicity, % African American /Black | Sample Size, % Female | Age | SES | Outcome Variable(s) | Findings |
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| Martin, et al., 2008 | RCT | Understand the correlates of physical activity related self-efficacy in hypertensive Black women. | African American, 100% | 61, 100% female | Mean 50.48 (SD 4.2) | na by sex | Physical activity self-efficacy | Averseness barrier (e.g. physical activity is boring or hard work) was the dominant variable in the model. About half variance in exercise self-efficacy was accounted for by two barrier factors—worry and inconvenience. Social support and competing demands were not associated with self-efficacy. |
| Martin, et al., 2007 | Cross section; part of larger RCT | Identify the positive resources and areas of need among insufficiently active Black hypertensive women who volunteered to participate in a RCT designed to increase physical activity using the Transtheoretical Processes of Change Model. | African American, 100% | 61, 100% female | Mean 50.48 (SD 4.2) | 81% some college or higher; 55% unmarried; 98% employed full-time | Physical activity self-efficacy | Majority (88.5%) of participants were in the contemplation stage. Participants reported they received little social support for physical activity. Convenience type barriers were most likely to interfere with physical activity. Women used strategies to differing extents; self-reevaluation and self-liberation were the most frequently used behavioral strategies. Participants were moderately confident in their ability overcome barriers to exercise and to engage in behaviors conducive to an active lifestyle. |
| Morris, et al., 2006 | Cross sectional survey | Determine characteristics associated with drug adherence and BP control among patients with HTN and assess agreement between self-reported and refill adherences. | Mixed, 68% African American | 492, 73% female | Mean 57 (SD 11) | 21% married; 56.3% reported income was enough or comfortable; 2.3% working | Self-reported medication adherence; drug refill; BP | Demographic variables (age, sex, and race) and depression are associated with antihypertensive drug adherence and blood pressure control. Increased age and being married were associated with improved adherence. African Americans more likely to be non-adherent by refill patterns. |
| Ogedegbe, et al., 2012 | RCT | Evaluate whether a patient education intervention enhanced with positive-affect indication and self-affirmation was | African American, 100% | 256, 77% (Control) and 82% (Intervention) | Mean 59 (control); 57 (intervention) | College grad- 56% control; 60% (intervention) | Mean medication adherence; change in BP | Enhancing patient education intervention with a positive affect and self-affirmation led to a significantly higher medication adherence compared with the patient education alone intervention (42% vs. 36% respectively). There were no |

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| | | more effective than patient education alone on improving medication adherence and reducing BP among hypertensive blacks | | | | | | significant differences in BP between the two groups. |
| **Author, year** | **Study Design** | **Purpose** | **Sample Race/ethnicity, % African American /Black** | **Sample Size, % Female** | **Age** | **SES** | **Outcome Variable(s)** | **Findings** |
| Ogedegbe, et al., 2004 | Qualitative | Explore the perspectives of hypertensive African American patients in 2 primary care practices regarding the factors they perceived as barriers or facilitators of adherence to antihypertensive medications. | African American, 100% | 106, 58% female | Mean 56 years | 77% high school or higher; 74% annual income ≤$20,000 | Hypertension medication compliance | Barriers to medication adherence included forgetfulness, beliefs e.g., medications are addictive, cause impotence; attitudes i.e. denial, negligence; disease specific including symptoms and side effects of meds; logistics including access and inconvenience; quality of meds i.e. size and costs. Facilitators included good patient-doctor communication; having routine and regular activities; helpful and positive social supports; and reminders. |
| Richardson, et al., 2014 | Cross sectional survey | Examine association between weight-based discrimination and hypertension medication adherence among low income African Americans | African American, 100% | 780, 70.9% female | Mean 53.7 years (SD 9.9) | 30.3% annual household income < $5000 | Hypertension medication adherence | Weight-based discrimination was strongly associated with medication non-adherence among low income African Americans with hypertension and nearly two-fifths of this association attributable to medication self-efficacy. Physician responses to overweight and obese patients influenced participants' perceptions about lower expectations for compliance. |
| Rodriguez, et al., 2012 | 12 week community-based intervention pilot study | Test culturally tailored intervention to reduce cardiovascular risk factors for African American women | African American, 100% | 34, 100% female | Mean 48 years (SD 3) | na | Blood pressure (SBP and DBP); waist circumferenc e, body weight and BMI | Overall intervention resulted in statistically significant reduction in SBP, BMI, BW and WC. Women are best able to make and sustain lifestyle and behavioral changes when health information is combined with both individual and group support mechanisms and include cultural and spiritual influences. |

| Author, year | Study Design | Purpose | Sample Race/ethnicity, % African American /Black | Sample Size, % Female | Age | SES | Outcome Variable(s) | Findings |
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| Rucker-Whitaker, et al., 2007 | Intervention -only arm of six week self-management intervention; pilot study | Demonstrate feasibility, effectiveness and acceptability of structured self-management program for African Americans with one or more chronic conditions | Mixed, 96% African American | 46, 91% female | Mean 65 years | Mean education (11 years) | Self-management behaviors self- efficacy; self-rated health status; physical activity | 72% of participants had hypertension; significant improvement in self-efficacy in medication adherence and physical activity and self-rated health status. Participants reported desiring action plans for self- management; group support structure; more than six week session; and incorporating spirituality as basis for coping. |
| Schneider, et al., 2005 | RCT | Compare the effects of two stress reduction techniques and a health education control program on hypertension in African American men and women. | African American, 100% | 150, 52.7% female | 49 years (SD 10) | 62% Income <$10,000; 62% some college or less | SBP and DBP; stress; change in BP medication, and lifestyle factors including exercise, diet, and smoking | Women in transcendental meditation stress reduction group showed greater decrease in BP than women in convention health education or progressive muscle relaxation classes. TM group demonstrated reduced use of antihypertensive medication relative to increases for PMR and HE groups. Women decreased alcohol use and were more likely to take antihypertensive medication than men. |
| Schoenhaler, et al., 2007 | RCT | Evaluate the effect of a behavioral intervention on medication adherence in hypertensive African Americans | African American, 100% | 167, 85% female | Mean age of 54 years | 64% household income <$20,000 | Primary outcome medication adherence; secondary depressive symptoms and self-efficacy | Both depressive symptoms and self-efficacy assessed independently are associated with poor medication adherence at follow up. The relationship between depressive symptoms and medication adherence becomes non-significant when controlling for self-efficacy. Thus self-efficacy mediated the relationship between self-efficacy and depressive systems on hypertension management. |
| Warren-Findlow, et al., 2012 | Cross-sectional | Assess chronic self-care behaviors among African American adults with HTN; and examine psychosocial factors that influence self-care adherence. | African American, 100% | 188, 70% female | Mean age 53 years | 66% household income <$50,000 (19% <$10,000) | HTN self-management behaviors: diet, physical activity, medication adherence, smoking and alcohol | Overweight individuals had lower prevalence of medication adherence; women had higher prevalence o of adherence to low salt diets; higher education level was associated with prevalence of weight management; good self-efficacy was statistically significant with higher prevalence adhere for five of six JNC7 recommendations. Good self-efficacy |

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| | | | | | | | | associated with higher prevalence of adhering to low salt diet strategies and engaging in physical activity and weight management. |
| Warren-Findlow & Seymour, 2011 | Cross-sectional | Assess prevalence of self-care activities among African Americans with HBP and examine differences between adherers and non-adherers to self-care activities | African American, 100% | 186, 72% female | Mean age 53 | 88% household income <$50,000 | HTN self-care activities medication usage, low sat diet, physical activity, smoking, weight management and alcohol use | Following weight management practices and eating low salt diets were less frequently among the population. Medication adherers were more likely to be older and non-adherers were more likely to be uninsured. Participants who adhered to low salt diets had grater mean years with HTN. |
| Webb & Gonzalez, 2006 | Qualitative study using focus groups | Explore African American women's mental representations of hypertension. | African American, 100% | 47, 100% female | Mean age 50 years (range 23-77) | 47% college graduate | AA women's mental representation of hypertension | Four themes were generated: vulnerability and inevitability; bio-behavioral assaults; barriers to effective management; and culturally relevant remedies. Stress was perceived by all of the groups to be the most significant risk factor for hypertension. Various psychosocial burdens emerged across groups: racial burden, performance burden; kinship burden and multirole burden of being African American and woman. These "burdens" were identified as factors contributing to the cause and management (day to day hassles) of hypertension. |