Culturally Appropriate Hypertension Education

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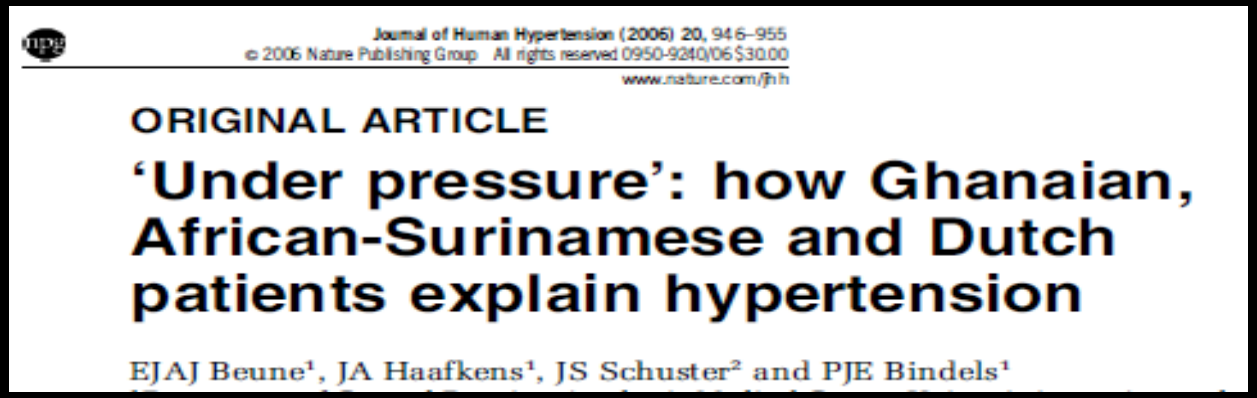
Background

- Hypertension in people of African origin
  - more often (2-4x)
  - poor BP control
  - more hypertension related organ damage (CVA)
- African Surinamese and Ghanaians
  - largest groups of African origin in the Netherlands
- Non-adherence (30-70%)
  - higher among patients from ethnic minorities
- Patient education may be more effective if
  - patient perspective taken into account
  - socio cultural background taken into account (Arthur Kleinman)

Explore Patient perspective of HTN and Barriers to medication use

→ **i**n depth interviews with Ghanaian+Surinamese+Dutch HTN patients



Journal of Human Hypertension (2006) 20, 946–955

0950-9240/06 $30.00
www.nature.com/jhh

ORIGINAL ARTICLE

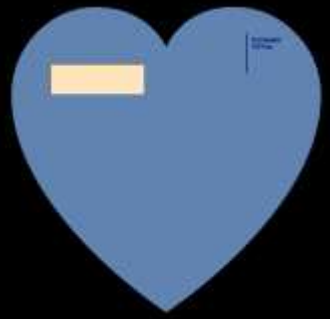
'Under pressure': how Ghanaian, African-Surinamese and Dutch patients explain hypertension

EJAJ Beune[1], JA Haafkens[1], JS Schuster[2] and PJE Bindels[1]

Patient perspective of HTN

Differs strongly from medical perspective!

- Disease with immediate threat for health
- Clear cause (migration)
- Temporary (Ghana/Suriname)
- Symptomatic



clear cause

stress due to migration

Ghanaian man

‘I am bombed in stress: I have my brother's children in Ghana… my brother died. I have to maintain them… our culture is different you know?

But also: Nederland, tax, the belastingkantoor!

That's why most of us have more high blood pressure than White people’

648 Original article

How Ghanaian, African-Surinamese and Dutch patients perceive and manage antihypertensive drug treatment: a qualitative study

Erik J.A.J. Beune[a], Joke A. Haafkens[a], Charles Agyemang[b], John S. Schuster[b] and Dick L. Willems[a]

Patient perspective of HTN

Barriers to medication use!

- Doubts about neccesity (e.g. temporary)
- Concerns (e.g. addiction)
- Natural remedies (e.g. herbs)
- Financial barriers (no insurance)

Natural therapy treatment of choice

Surinamese woman
'Once a week I take the HTN-tablet
… and for the rest I drink this'
[Neem]

bossopropo, neem, papaya leaf
redicotton, cucumber, bita, …etc

Journal of Human Hypertension (2009), 1–11

www.nature.com/jhh

ORIGINAL ARTICLE

Inhibitors and enablers of physical activity in multiethnic hypertensive patients: qualitative study

EJAJ Beune[1], JA Haafkens[1], C Agyemang[2] and PJE Bindels[3]

Patient perspective of HTN

Barriers to adopt lifestyle advice!

+ communities may play an important role

'When I lose weight, they [friends-family] start saying things like: 'are you'sick?', 'you look terrible'

'We Ashanti people don't know how to swim or how to ride bicycle'

'The church is helping me with my BP, once in a week we do exercise training … the church knows what is good for us!'

Develop intervention

Culturally Appropriate Hypertension Education

- Toolkit for health care providers
- Implementation support strategies

CAHE – intervention

Toolkit for health care providers

- (1) **topic list** to explore the patient's ideas, concerns and expectations regarding hypertension and culturally specific inhibitors and enablers of adherence to hypertension treatment
- (2) **topic list** to facilitate the recognition of specific inhibitors to hypertension management in Surinamese and Ghanaian patients
- (3) **information leaflets** for Surinamese or Ghanaian patients with answers to frequently asked questions about hypertension (adapted to the language, customs, habits, norms and dietary cultures and pre-tested in two focus groups with Surinamese and Ghanaian hypertensive patients)
- (4) **a referral list**, including neighborhood facilities offering healthier lifestyle support, tailored to Surinamese and Ghanaian patients
- (5) **list of items to register** the results of hypertension counseling sessions

Tools were supplemented to the standard hypertension protocol used in practices (made available through pop-up screens in the digital hypertension protocol that could be accessed on the intranet of the practices and on paper)

Box 1 - Summary of three culturally adapted hypertension education sessions

Sessions	Content sessions			
Main topic	Method and topics to be addressed			
	Elicit patient perspective, using culturally-sensitive framework	**Inform patient about medical perspective**	**Reach consensus**	**Establish**
Session 1 **1. Establishing communication, identifying barriers and rapport** **2. What is hypertension?**	- Experience of (culturally specific) communication barriers (i) - What is hypertension? (i) - Hypertension treatment and goals? (i)	Discuss - Hypertension (ii) - Treatment goals (ii)	- What is hypertension? (iii) - Patient's treatment goals? (iii)	- Potential barriers/facilitators for achieving treatment goals (i, iii) - Goal for next 3 months
Sessions 2 and 3 **1. How to achieve hypertension treatment goals?**	Experience of (culturally specific) barriers/enablers in achieving patient's hypertension treatment goals: medication use and lifestyle changes (i)	Discuss patient's current: (i, ii, iii) - BP measurement - Self-reported medication and lifestyle adherence - Treatment goals	- What feasible steps are needed to maintain/achieve treatment goals? (iii)	- Potential barriers/facilitators for achieving treatment goals (i, iii) - Goal for next 3 months

(i) Using culturally-sensitive framework for eliciting a patient's explanatory model of hypertension (box 2); (ii) using information from hypertension guidelines [35]. (iii) using "5 As" method [18].

Table 2. Culturally-sensitive framework for eliciting a patient's explanatory model of hypertension[a].

COMMUNICATION
Determine how a patient wants to be addressed (formally or informally)
Determine the patient's preferred language for speaking and reading (Dutch or another language)
Use this information in your interaction with the patient
INTRODUCTION
It is often difficult for us (care providers) to give advice about hypertension and how to manage it if we are unfamiliar with our patients' views and experiences. For this reason I would like to ask you some questions to learn more about your own views on hypertension and its treatment.
ELICIT PERONAL VIEWS ON HYPERTENSION AND ITS TREATMENT
a) Understanding
What do you understand hypertension to mean?
b) Causes
What do you think has caused your hypertension? Why has it occurred now/when it did; why to you?
c) Meaning and symptoms
What does it mean to you to have hypertension?
Do you notice anything about your hypertension? How do you react in this case?
d) Duration and consequences
How do you think your hypertension will develop further? How severe is it?
What consequences do you think your hypertension may have for you (physical, psychological, social)?
e) Treatment
What types of treatment do you think would be useful?
What does the prescribed therapeutic measurement(s) mean to you?
ELICIT CONTEXTUAL INFLUENCES ON HYPERTENSION MANAGEMENT
a) Social
Do you speak with family/community members about your hypertension? How do they react?
Do family/community members help you or make it difficult for you to manage hypertension? Please explain.
b) Culture/Religion
Are there any cultural issues/religious issues that may help you or make it difficult for you to manage hypertension? Please explain.
c) Migration
Are any issues related to your position as an immigrant making it difficult for you to manage hypertension? Please explain.
d) Finance
Are any issues related to your financial situation making it difficult for you to manage hypertension? Please explain

Living with Hypertension

Taking control

CAHE – intervention

Implementation support strategies

(informed by theories regarding the principles of effective change in medical care)

- Discussion meetings with GP teams
- Training for counselors (NPs and GP assistants)
- Feedback to counselors (NPs and GP assistants)

Aim: to maximize the application of the toolkit and remove potential barriers to the adoption of the tools

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Provider Perspectives

Barriers and enablers in the implementation of a provider-based intervention to stimulate culturally appropriate hypertension education

Erik J.A.J. Beune [a,*], Joke A. Haafkens [a], Patrick J.E. Bindels [b]

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CAHE – implementation study

Aim: To identify barriers and enablers influencing the implementation of an intervention to stimulate culturally appropriate hypertension education (CAHE) among health care providers in primary care.

- Barriers to adopt CAHE are associated with the implementation of health care innovations in general and do not indicate resistance to providing culturally appropriate care
- The intervention can increase the acceptance of a culturally appropriate approach to hypertension care among hypertension educators in routine primary care

CAHE – implementation study

Table 2
Identified contextual barriers to and enablers of the implementation of culturally appropriate hypertension education.

Category	Identified barrier	Strategy	Result
Political context			
New national policy for financing health care system	Less financial support for innovations: loss of motivation and concerns about reimbursement	Facilitate registration and declaration of extra time spent on HTN education	Fewer concerns about financial consequences of the application of new protocol
Organizational factors			
Ongoing organizational changes	Technical and organizational problems with the introduction of a new system for electronic patient registration	Postpone implementation	Delay
	Move to other building (one health center)	Postpone implementation	Delay
Environment	GP assistant no access to private room	Seek adequate room for patient education	Quiet workplace for GP assistant
Time constraints	High case load GP assistant	Stepwise implementation: use new protocol for newly diagnosed patients first	Prevention of overload of nurses
	GP assistants must provide ad hoc assistance to GP	Arrange clear role for GP assistant in care process for HTN patient	GP assistant more time to provide HTN education
	No replacement of sick NP or GP assistants	None	None
Staff	High turnover of GP assistants	Support knowledge transfer about program for new staff	Study materials available to new staff
Care provider-specific factors			
Capabilities	Lack of computer skills and skills using EMRs	Provide practical tools and individual coaching	Better access to digital protocol Increased use of protocol and EMR
	Lack of basic HTN knowledge by GP assistants	Facilitate feedback by GP (continuous medical education)	Improved HTN knowledge by GP assistants
	Insufficient skills for patient education of GP assistants	Provide video feedback	More insight into communication process
Routines	Relapsing into old routines	Provide reminders, checklists, reflections (e.g. video feedback) Facilitate feedback by GP	More routine to use new protocol More insight into old routines and professional attitudes
Attitudes	Resistance to innovations in general	Acknowledge and discuss reasons for resistance	Emphasis on the more motivated participants
	Ambivalence about registering ethnic background	Discuss pros/cons of registering ethnicity	Increased registration of ethnicity
Cultural background	Socially desirable behavior of Surinamese patients	None	None

HTN, hypertension; EMR, electronic medical record.

OPEN ACCESS Freely available online

PLOS ONE

Culturally Adapted Hypertension Education (CAHE) to Improve Blood Pressure Control and Treatment Adherence in Patients of African Origin with Uncontrolled Hypertension: Cluster-Randomized Trial

Erik J. A. J. Beune[1,2*], Eric P. Moll van Charante[1], Leo Beem[1†], Jacob Mohrs[1], Charles O. Agyemang[2], Gbenga Ogedegbe[3], Joke A. Haafkens[1]

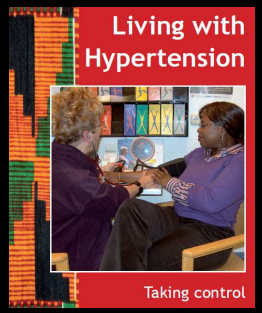
CAHE – Trial

- **Aim:** to test the effectiveness of a culturally-appropriate hypertension educational intervention for primary care patients of African origin with uncontrolled hypertension
- **Design:** cluster RCT
- **Setting:** 4 prim. health centres; multicultural district; Amsterdam; Netherlands
- **Patients:** 146 diagnosed HTN; Afric.Sur/Ghan; SBP ≥ 140 at baseline

CAHE – trial intervention

Intervention patients

Usual care according to Dutch GP guidelines



+ 3 nurse-led **C**ulturally **A**ppropriate **H**TN **E**ducation sessions **30 mins**:

- culturally-tailored hypertension counselling
- culturally-specific educationall written materials
- tailored neighborhood lifestyle referrals

at ½, 2 and 5½ months

Control patients

Usual care according to Dutch GP guidelines

CAHE – trial

Outcome Measures and Measurement

Mean differences between study arms *after 6 months*

I. Blood Pressure

- Omron 705-IT (3x)

II. Adherence

self report

- Lifestyle scale
- MMAS-8

electronic medical records

- Medication refill data

CAHE – trial

Measurement

II. Adherence - Lifestyle

→ 3 questions (total score → range: 1 – 4)

1. Have you been advised by your PN/GP about smoking, nutrition, alcohol, weight control and/or physical activity (yes/no)?
2. If yes: which advice was given?
3. To what extend did you follow this advice?
   (range: 1: never – 4: always)

CAHE – trial

Measurement

Morisky DE, Ang A, Krousel-Wood M, Ward H. Predictive Validity of a Medication Adherence Measure for Hypertension Control. Journal of Clinical Hypertension 2008; 10(5):348-354

II. Adherence Medication

→ 8 questions (MMAS-8)

(total score → range: 0 – 8)

You indicated that you are taking medication for your (identify health concern, such as "high blood pressure"). Individuals have identified several issues regarding their medication-taking behavior and we are interested in your experiences. There is no right or wrong answer. Please answer each question based on your personal experience with your [health concern] medication. Interviewers may self identify regarding difficulties they may experience concerning medication-taking behavior.

(Please circle the correct number)

	No=0	**Yes=1**
1. Do you sometimes forget to take your [health concern] pills?		
2. People sometimes miss taking their medications for reasons other than forgetting. Thinking over the past two weeks, were there any days when you did not take your [health concern] medicine?		
3. Have you ever cut back or stopped taking your medication without telling your doctor, because you felt worse when you took it?		
4. When you travel or leave home, do you sometimes forget to bring along your [health concern] medication?		
5. Did you take your [health concern] medicine yesterday?		
6. When you feel like your [health concern] is under control, do you sometimes stop taking your medicine?		
7. Taking medication everyday is a real inconvenience for some people. Do you ever feel hassled about sticking to your blood pressure treatment plan?		

8. How often do you have difficulty remembering to take all your medications? (**Please circle the correct number)**

   Never/Rarely……**0**

   Once in a while……**1**

   Sometimes……**2**

   Usually……**3**

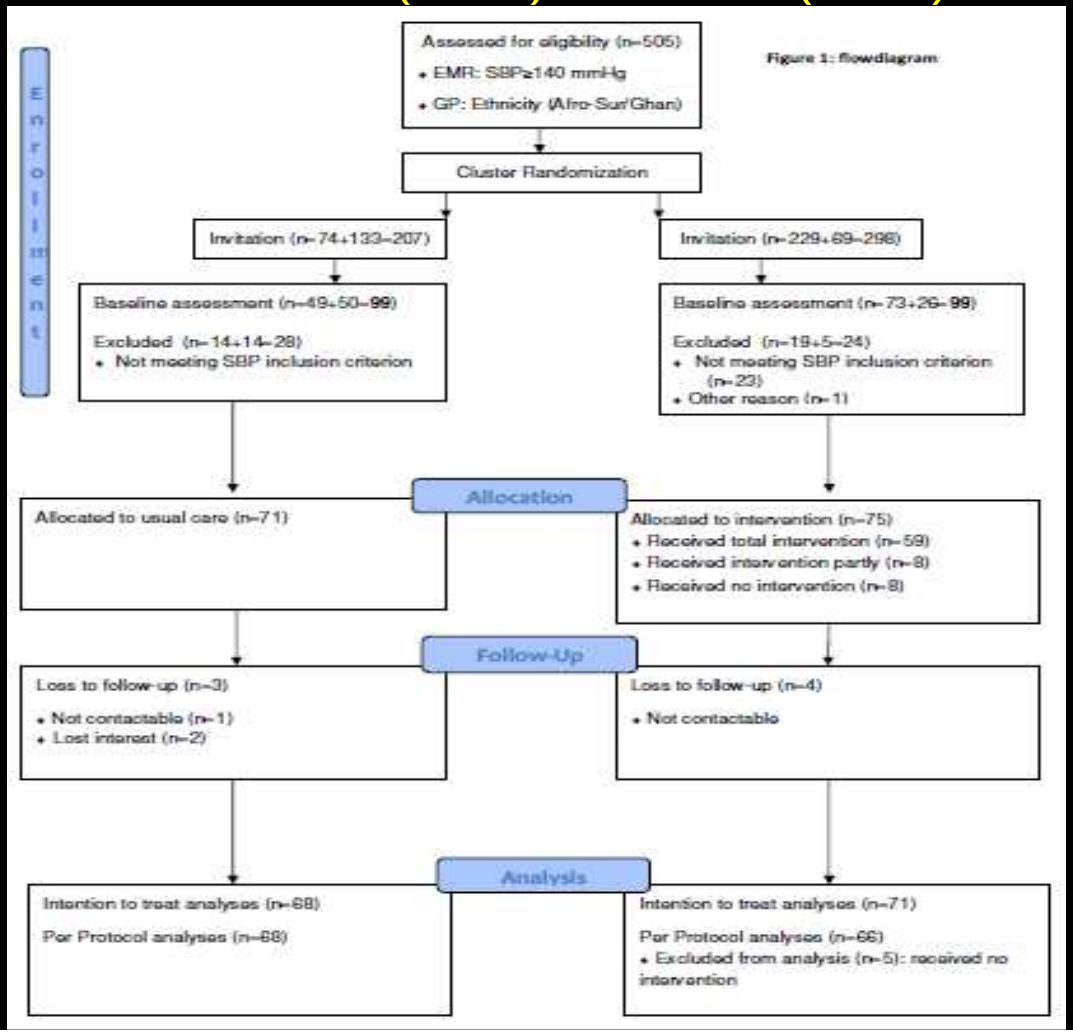
   All the time……**4**

CAHE – trial

Flow

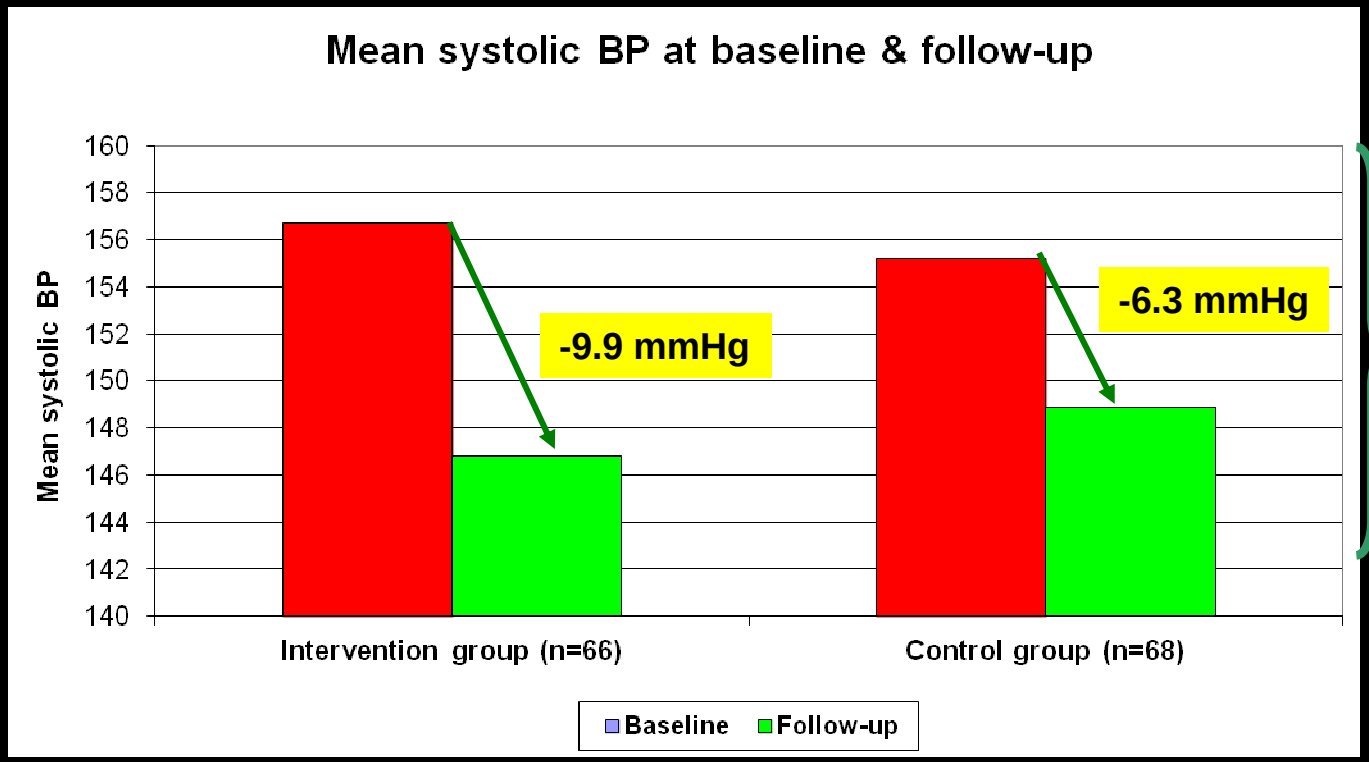
146 participants allocated

Usual care (n=71) vs CAHE (n=75)



CAHE – trial

Systolic BP

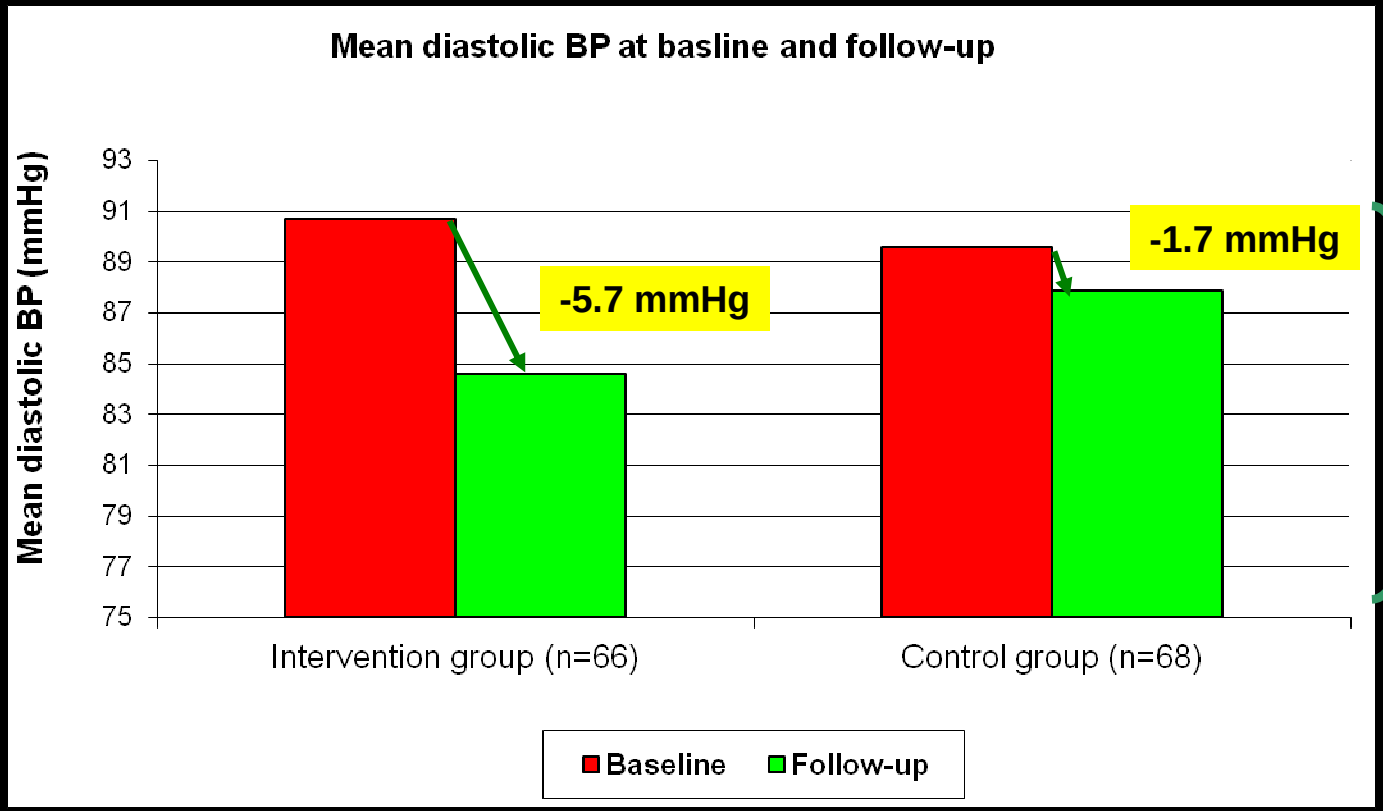


Adjusted diff*
-1.7 (-6.1, 2.6)
P = 0.44

**adjusted for age, sex, years since hypertension, education, baseline blood pressure and clustering effect*

CAHE – trial

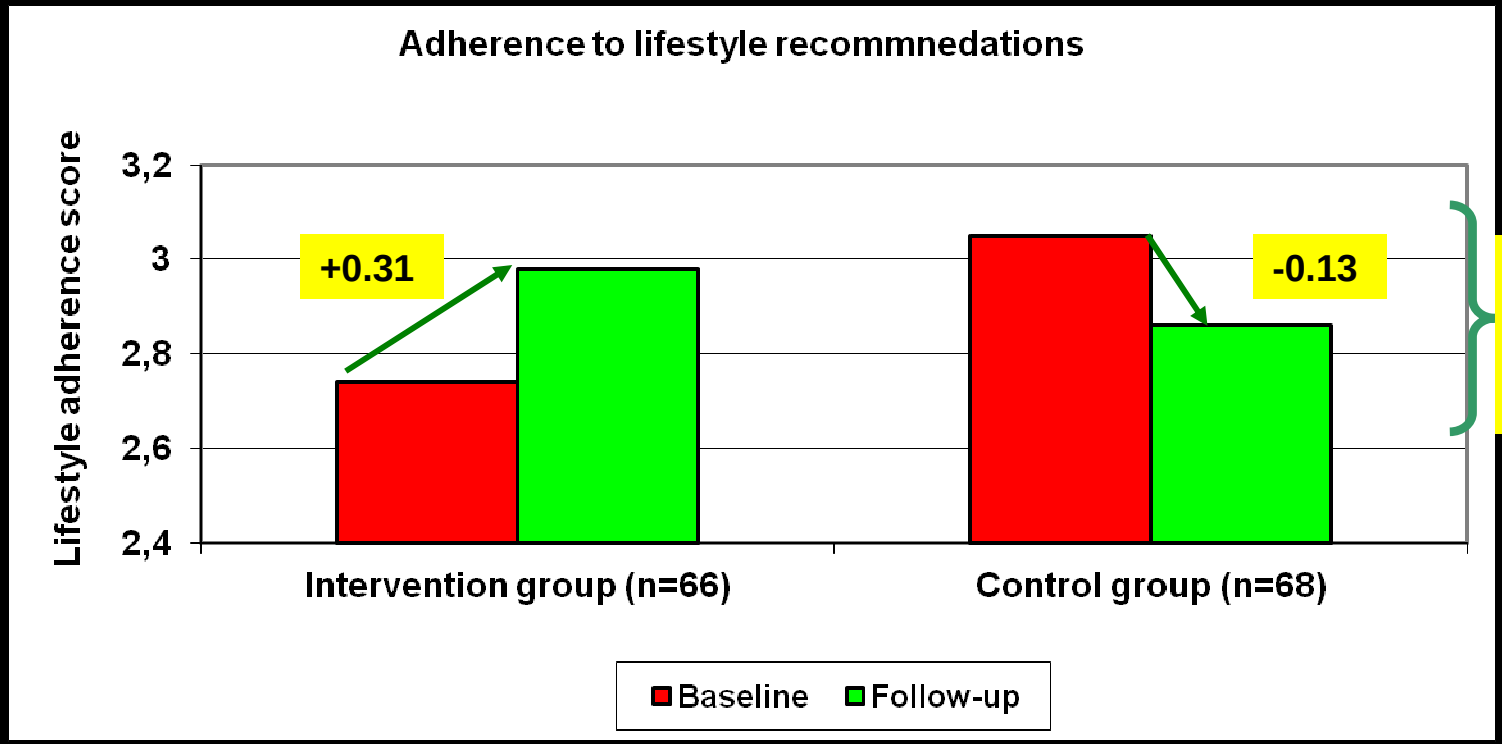
Diastolic BP



**adjusted for age, sex, years since hypertension, education, baseline blood pressure and clustering effect*

CAHE – trial

Adherence to lifestyle recommendation

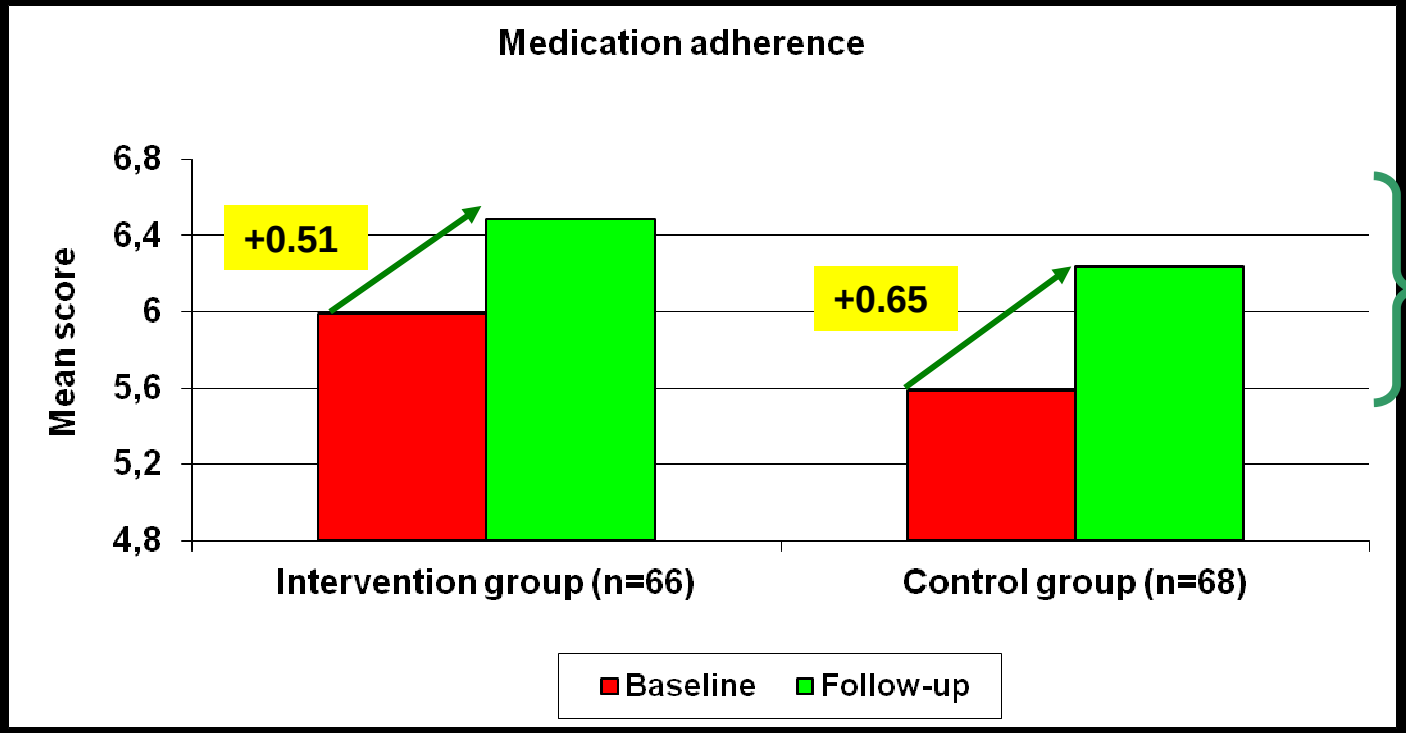


Adjusted diff*
0.34 (0.12, 0.55)
P = 0.003

**adjusted for age, sex, years since hypertension, education, baseline measurement and clustering effect*

CAHE – trial

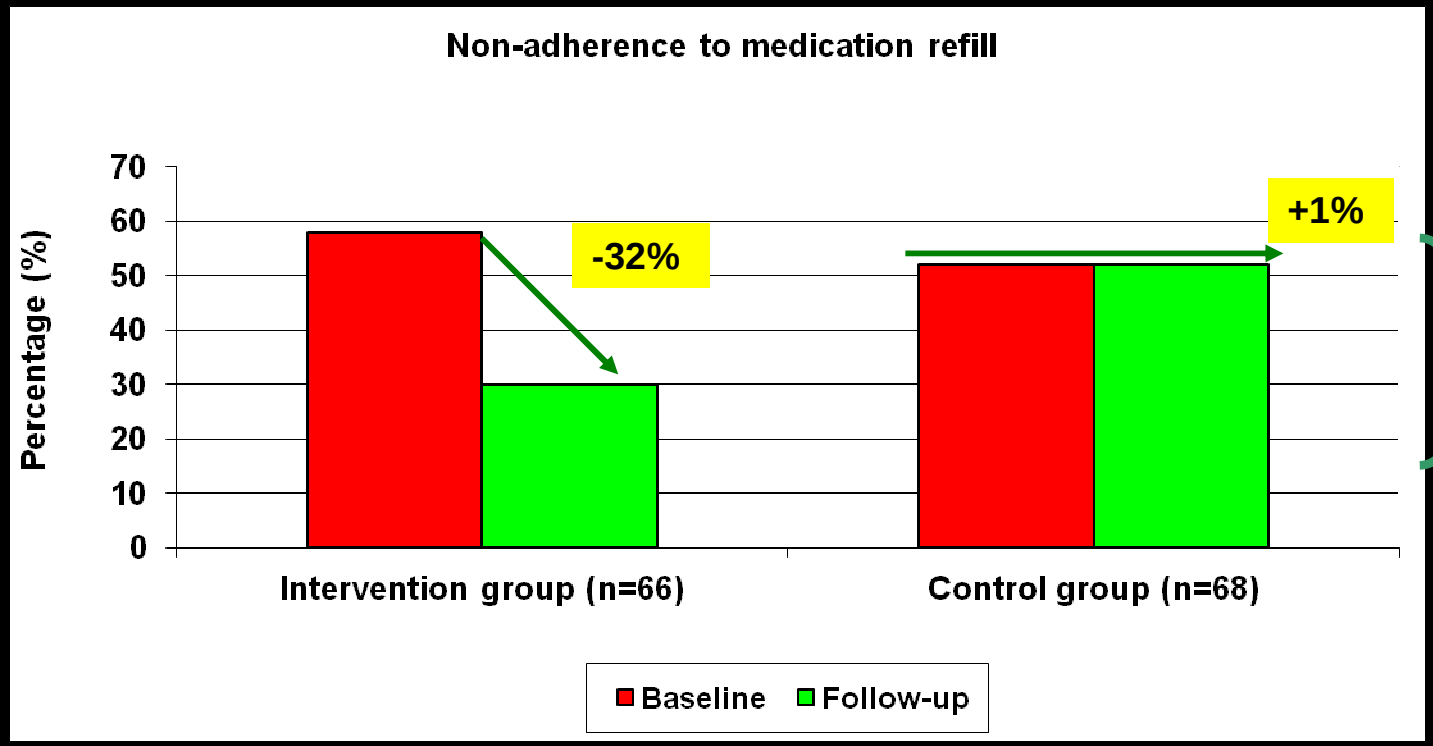
Adherence to medication



**adjusted for age, sex, years since hypertension, education, baseline measurement and clustering effect*

CAHE – trial

Non-adherence to medication refill



OR
0.10 (0.01, 0.75)
P < 0.0024

**adjusted for age, sex, years since hypertension, education, baseline measurement and clustering effect*

CAHE – trial

Conclusion - Discussion

- Findings support adoption of culturally tailored patient care in multiethnic practices
  - Nurse led **CAHE** can complement standard HTN care
  - Patients of African origin with uncontrolled HTN can benefit from **CAHE**

- Limitations
  - inconclusive findings on medication adherence (self-reported versus medication refills)
  - possible effect of interviewing on BP reduction in control group
  - no long-term benefits measured

CAHE

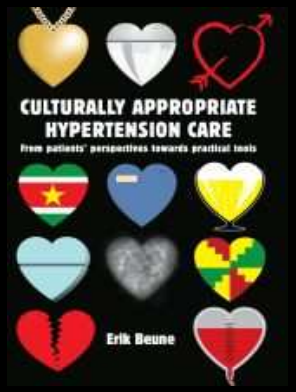
Success factors!

1. Adapted the intervention as much as possible to the working methods of health care providers
2. Qualitative study to elicit (culturally specific) patient perspective
3. Intervention developed together with patients AND health care prov.
4. Multi-component intervention: Toolkit for health care providers, Implementation support strategies, Patient materials
5. Nurse-led instead of GP-led intervention
6. **Tested and adapted intervention in *routine primary care* to access barriers to the adoption of providing culturally appropriate care !!!**

Thanks!

More info?

Download Thesis Erik Beune → http://dare.uva.nl/record/341433



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