



# What is the evidence for effectiveness of interventions to enhance coping among people living with HIV disease? A systematic review

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# Background

- Effective treatment & chronic disease model
  - Now focus on enabling individuals to live socially, economically and emotionally satisfying lives
- number of key points may be relevant to “coping”-
  - diagnosis, therapy initiation, adherence, negotiation of information sharing, socioeconomic, stigma, living long term, multidimensional problems (physical & psychological *Harding BMJ STI 2012, AIDS 2011; social AIDS Care 2008; spiritual J Clin Epi 2012)*)

# Defining coping

- Lazarus & Folkman
  - *“imbalance between demands and resources”*
- Folkman & Lazarus three typologies of coping:
  - appraisal-focused (modifying the way one thinks)
  - problem-focused (trying to deal with the cause)
  - emotion-focused coping (releasing built up emotions)
- In contexts of HIV heterogeneity, coping is contextual
  - African settings
  - MSM
  - Women & children

# Aim & objectives

- To identify and appraise the evidence for effectiveness of interventions to enhance coping among people living with HIV disease
  - 1) how coping has been measured in HIV infected populations and which measurement tools used
  - 2) the settings and populations in which studies have been conducted
  - 3) the nature of the interventions that have been evaluated and their efficacy and/or effectiveness.

# Protocol

- Search strategy
  - MEDline & Psychinfo 09/09 (updated 09/14)
  - Union of [AIDS; HIV; Acquired Immunodeficiency Syndrome] “*and*” operator [adaptation, psychological, dealing with illness, coping, cope, coping behaviour, active behaviour\*]
  - Study design inclusion criteria: clinical trial; comparative study control groups; or Exp double-blind method; or Exp single-blind method; Placebos/Psychotherapy; Intervention studies /trial; intervention.

# Protocol

- Inclusion criteria:
  - primary studies; target population included any age group of people with HIV infection; Intervention: report any physical, psychological, pharmaceutical psychosocial or any HIV specific therapy; outcome measurement utilised at least one measure of coping; study design included a control or comparison group
- Exclusion criteria:
  - reviews, book chapters, dissertations, letters, or editorial opinions. Excluded target populations were non-HIV (including such as those in high risk groups for HIV, or those tested for HIV but testing negative). Study types excluded were case report, or any study without intervention or comparison/control group; Non-English articles were also excluded

# Protocol

- Data extraction into piloted common tables
  - author, year, country of origin, sample characteristics (age, gender, sample size and allocation), description of intervention, coping measurement tool, and effectiveness results.
  - Meta-analysis not plausible.
  - All papers which met criteria first identified by 1<sup>st</sup> reviewer (LL) agreed by 2<sup>nd</sup> (RH), adjudicated by 3<sup>rd</sup> (LS)

## Results: PRISMA returns

- 654 hits from Medline and PsycINFO
- 583 unique hits
- 167 articles reviewed in full-text
- 20 could not be retrieved as full texts
- 28 articles data retained and analysed



# Results: study characteristics

- Gender/sexuality
  - n=9 conducted among MSM
  - n=16 both genders
  - n=2 women only.
- Country
  - n=22 USA,
  - n=2 Netherlands,
  - n=1 each from Australia, Switzerland, Zambia, Nigeria

## Results: interventions

- The majority of interventions aimed to improve mental health, reduce psychological symptoms such as anxiety, or to achieve stress reduction.
- Effectiveness:
  - n=17(60%) significant positive changes
  - n=6 (21%) no changes
  - n=1 (3.6%) demonstrated avoidance coping had a negative effect on quality of life
  - N=4 (7%) studies reported mixed results

# Results

- Heterogeneous aims were described for the interventions.
- Broad definition of “coping”:
  - reduction of denial coping, and use of negative strategies and avoidant coping strategies
  - increased use of positive reframing
  - increased perceived self-efficacy
  - Increased active coping and seeking emotional support
  - increased problem-focused coping and fewer intrusive thoughts.

# What worked? (positive outcomes only)

Intervention: psychological	Population	Outcomes
Weekly cognitive-behavioural stress management + pharmacy training on adherence	MSM USA 2006	Reduced denial coping
Weekly relaxation & stress management	MSM USA 2005	Improved positive reframing
Weekly psycho-educational & self management training	Mixed gender Nigeria 2005	Improved adaptive coping
Weekly cognitive-behavioural stress management	Women USA 2003	Decreased denial coping
Weekly stress management & relaxation training	Women Zambia 2005	Decreased negative coping
Weekly problem-solving skills training	MSM USA 1994	Increased active coping, reduced resignation
Weekly coping & effectiveness training & information	MSM USA 2003	Increased coping self-efficacy

Weekly quality of life & adjustment programme	MSM Netherlands 2003	Increased active coping
Weekly cognitive behavioural management and coping	Mixed gender USA 2001	Reduced emotive & fatalistic coping
Weekly cognitive-behavioural stress management	MSM USA 2002	Increased active coping & seeking emotional support
Weekly cognitive-behavioural coping	Mixed gender USA 2006	More problem-focused & less avoidant coping
Weekly online coping group	Mixed gender USA 2006	Less avoidant coping
Weekly cognitive-behavioural loss & living with HIV	Mixed gender USA 2009	Less avoidant coping

Weekly stress management training	Mixed genders USA 1996	Better psychological functioning & fewer intrusive thoughts
Weekly cognitive-behavioural stress management	MSM USA 1998	Improve positive reframing & acceptance
Long-term adaptation course	Parents & children USA 2003	Positive activity coping
<b>Intervention: DRUG THERAPY</b>		
HAART	Youth USA 2003	Improved positive coping styles
HAART	Women USA 2005	Fewer maladaptive coping styles

<b>Intervention: SPIRITUAL</b>		
Weekly Thai Chi & meditation	Mixed genders USA 2008	Less emotion focused coping, improved lymphocyte proliferation
Weekly meditation	Mixed genders USA 2009	Increased positive reappraisal coping
<b>Intervention: DIET &amp; EXERCISE</b>		
4 dietician visits	MSM Australia 2007	Improved use of positive coping processes
<b>Intervention: INFORMATION MANAGEMENT</b>		
Weekly sessions on information retrieval and critical thinking	Mixed genders USA 2006	Improved problem-focused coping

# Update 09/14

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Intervention	Population	Outcomes
Stigma reduction videos	Rural women USA, 2014	Improved coping self-efficacy
Weekly trauma therapy for HIV+ abuse survivors	Mixed genders USA 2013	Reductions in traumatic stress and avoidant coping
Psychosocial support group	Pregnant women South Africa 2011	Increased active coping Reduced avoidant coping



# Reflections

- Mixed populations appear to work
- Few biomedical outcomes
- Coping tools are sensitive
- Little new evidence over past 5 years
- There are many potential components to choose from: CBT, information retrieval, meditation, yoga: what might be an optimal integrated intervention?