



# University of HUDDERSFIELD

## University of Huddersfield Repository

Kola, Susanna and Walsh, Jane C.

Reducing Anxiety in Colposcopy Patients: The Effects of Matching Level of Information and Preferred Coping Style

### Original Citation

Kola, Susanna and Walsh, Jane C. (2009) Reducing Anxiety in Colposcopy Patients: The Effects of Matching Level of Information and Preferred Coping Style. In: 30th International Conference of the Stress and Anxiety Research Society 2009, 16th - 18th July 2009, Budapest, Hungary. (Unpublished)

This version is available at <http://eprints.hud.ac.uk/9756/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: [E.mailbox@hud.ac.uk](mailto:E.mailbox@hud.ac.uk).

<http://eprints.hud.ac.uk/>

# Reducing anxiety in colposcopy patients: The effect of matching level of information and preferred coping style

**Susanna Kola & Jane C. Walsh**

STAR Conference

July 2009



**NUI Galway**  
**OÉ Gaillimh**

School of Psychology

# Cervical Cancer

- Globally, it is the 4<sup>th</sup> most common cause of cancer mortality in women
  - 233 000 women in the world die from the disease each year (Parkin, Bray, & Devesa, 2001).
- Cervical cancer is largely preventable
  - Countries with screening programmes have documented declining incidence and mortality rates of cervical cancer (Levi et al., 2000).



# Patient experiences of cervical cancer screening

- Abnormal smear tests and colposcopy associated with anxiety, psychosexual distress and fear of cancer (e.g., Bekkers et al., 2002; Kola & Walsh, *in press*; Walsh et al., 2004).
- Anxiety may influence adherence rates
  - Non-adherence between 10 – 40 % (e.g., Khanna & Phillips, 2001).



# Previous efforts to reduce anxiety in women undergoing colposcopy

- Information-based interventions
  - Reduced anxiety (e.g., Marteau et al., 1996; Wilkinson et al., 1990)
  - Increased knowledge only (e.g., Somerset et al., 1998; Tomaino-Brunner et al., 1998)
- Pre-colposcopy counseling
  - Increased knowledge only (e.g., Byrom et al., 2002; Chan et al., 2004; Richardson et al., 1996)
- Intra-procedural interventions
  - Video colposcopy (Rickert et al., 1994; Walsh et al., 2004)
  - Music distraction (Chan et al., 2004; Danhauer et al., 2007)



# Coping style

- Mixed results from previous studies due to uncontrolled patient preferences for information or distraction?
- Individuals differ in how they cognitively deal with stressful medical situations
  - Monitoring coping style characterized by information-seeking and scanning for threat cues (e.g., Miller, 1987).
- Better adjustment when amount of information received is consistent with preferred coping style (e.g., Ludwick-Rosenthal & Neufeld, 1993; Morgan et al., 1998).



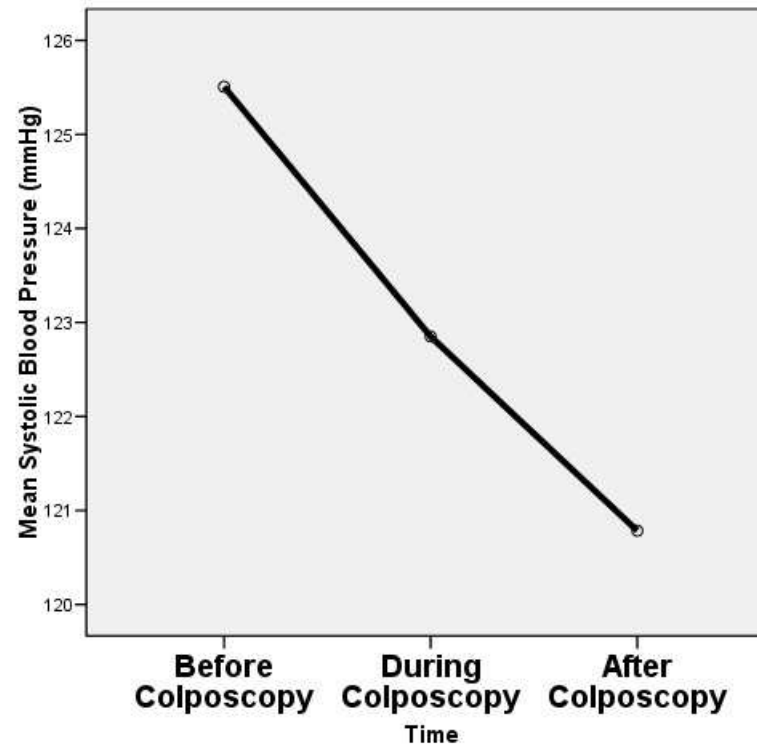
# Present study: Methods

- N = 155 first-time colposcopy patients (M age = 30.2,  $SD = 8.66$ ), 84 low monitors and 71 high monitors
- Women randomly assigned to one of four conditions:
  - Low-information (audiovisual or active distraction)
  - High-information (video colposcopy)
  - Control (standard care)
- Dependent measures: state anxiety and affect, observational measures of distress, and physiological indices of stress and arousal (SBP, DBP and HR)



# SBP Main Effect for Time

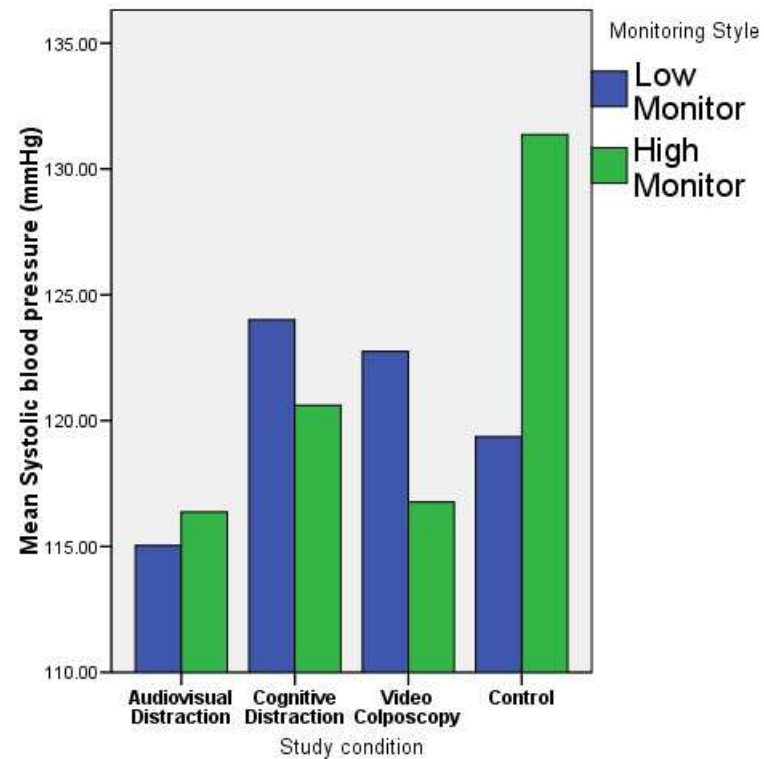
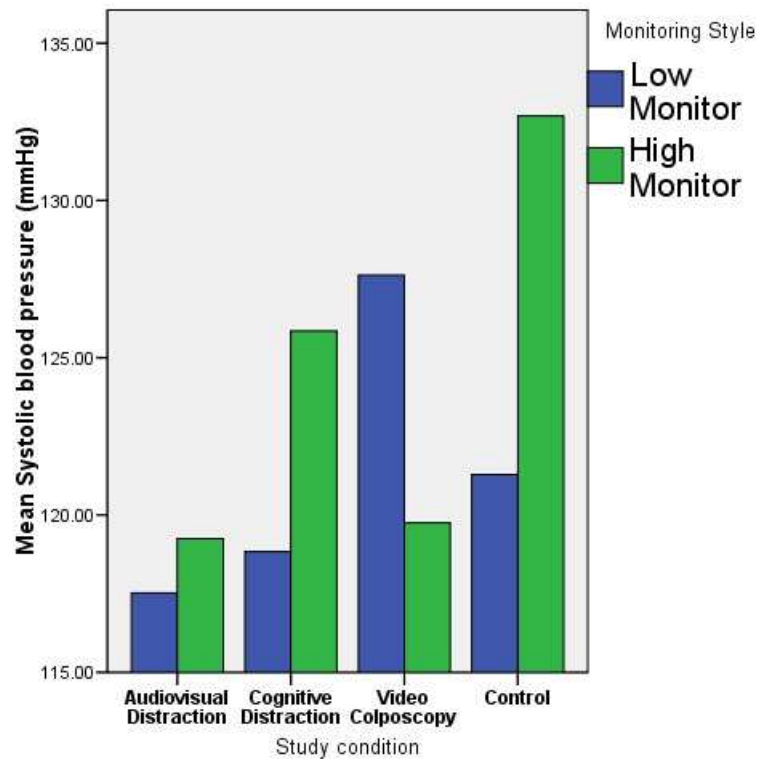
$$F(2, 294) = 11.80, p < .001$$



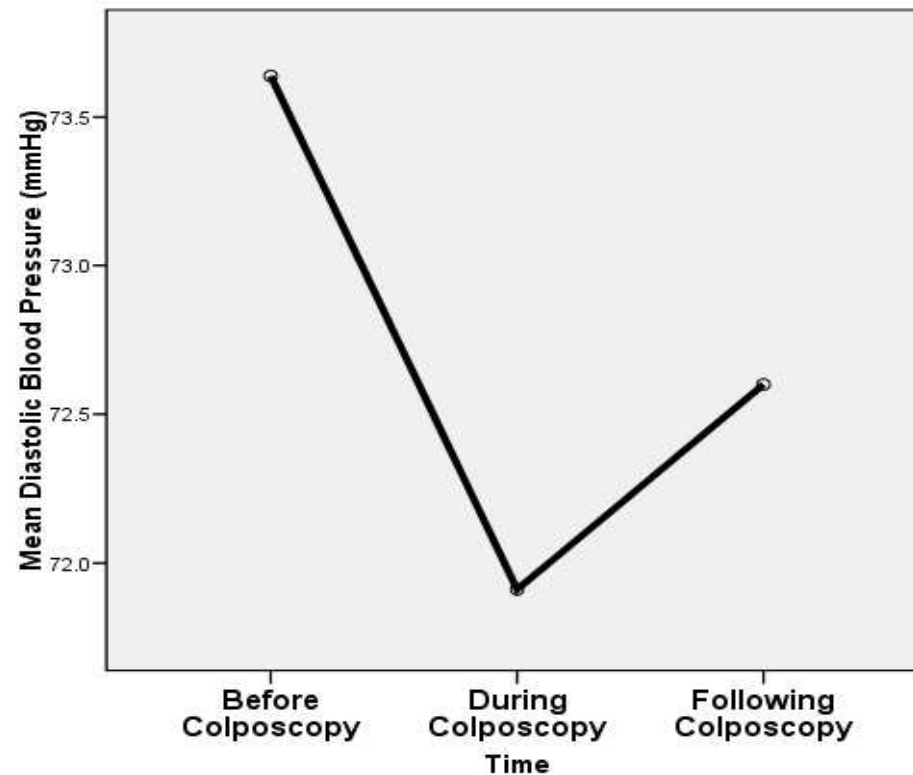


# Monitoring status × Condition × Time

$F(6, 294) = 4.01, p = .001$

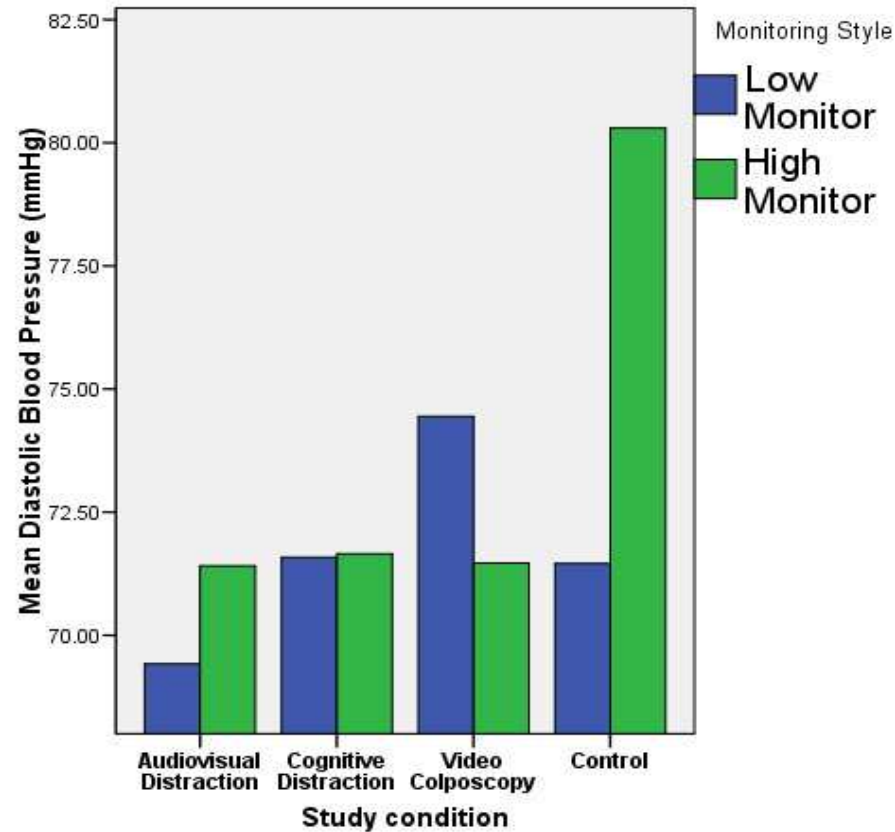


DBP Main Effect for Time  
 $F(2, 294) = 3.14, p = .045$

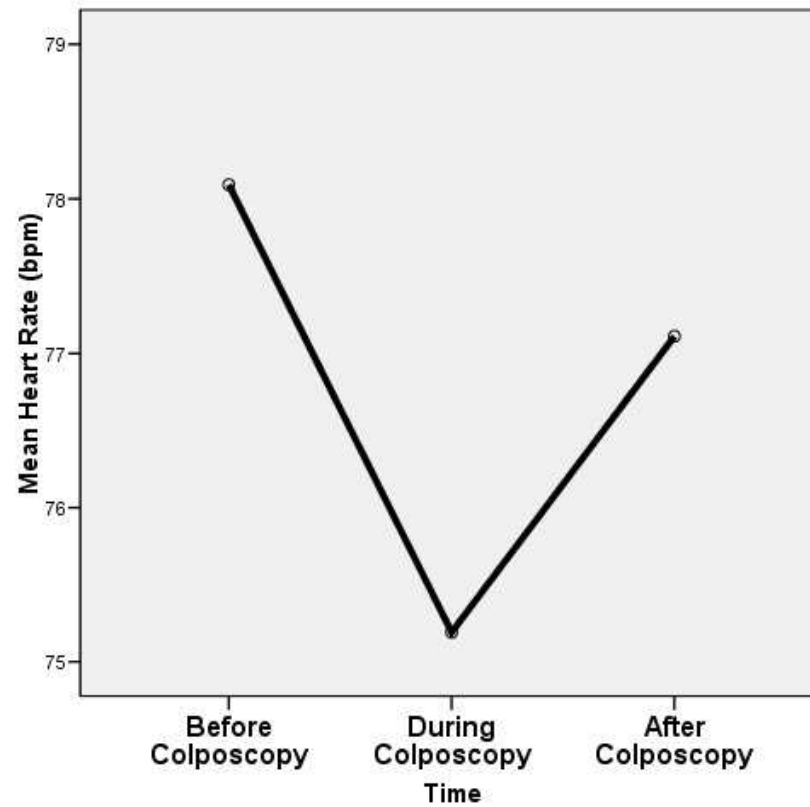


# DBP Monitoring status × Condition

$F(3, 147) = 2.91, p = .037$

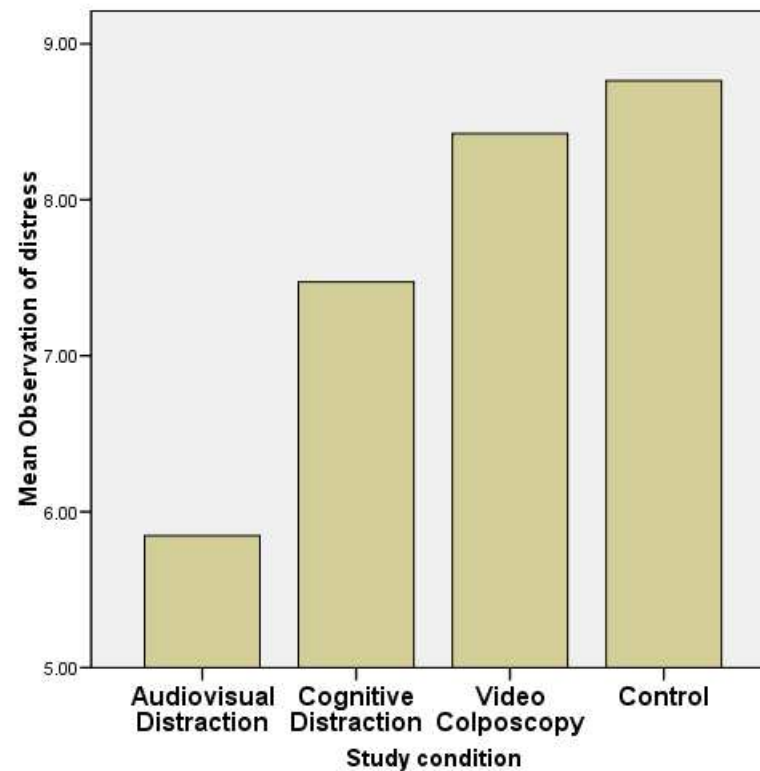


HR Main Effect for Time  
 $F(2, 294) = 8.32, p < .001$



# Observation of distress main effect for condition

$F(3, 147) = 2.76, p = .044$



# Self-report Measures

- **State anxiety** main effect for time,  $F(1, 147) = 106.59, p < .001$ 
  - Lower following colposcopy ( $M = 34.67, SD = 10.46$ ) than pre-colposcopy ( $M = 45.17, SD = 12.17$ )
- **Negative affect** main effect for time  $F(1, 147) = 73.43, p < .001$ 
  - Lower following colposcopy ( $M = 13.75, SD = 4.67$ ) than pre-colposcopy ( $M = 18.04, SD = 6.11$ )
- **Positive affect** all main and interaction effects ns



# Discussion

- High monitoring patients demonstrated reduced psychophysiological arousal when undergoing colposcopy in the audiovisual distraction and video colposcopy conditions, relative to high monitors in the control condition
  - Video colposcopy high-information that is linked with increased adjustment for high monitors (e.g., Miller & Mangan, 1983)
  - Audiovisual distraction possibly inhibited scanning for threatening information



# Discussion

- Low monitors did not show any significant differences in distress or adjustment depending on amount of information provided
  - Low monitors may be better able to utilise a variety of coping strategies
- Anxiety and negative affect associated with colposcopy significantly reduced following the examination
- Audiovisual distraction, relative to standard care, resulted in fewer signs of distress during colposcopy

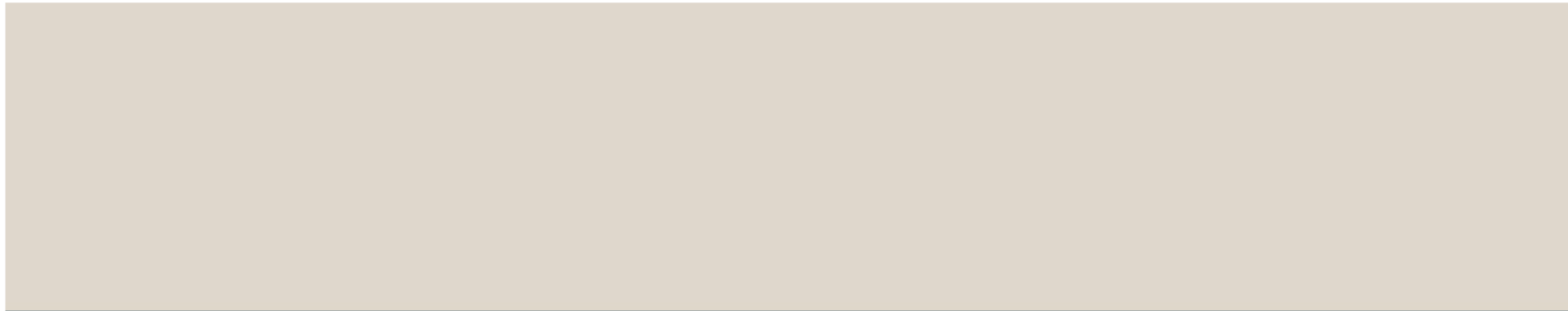




# Conclusion

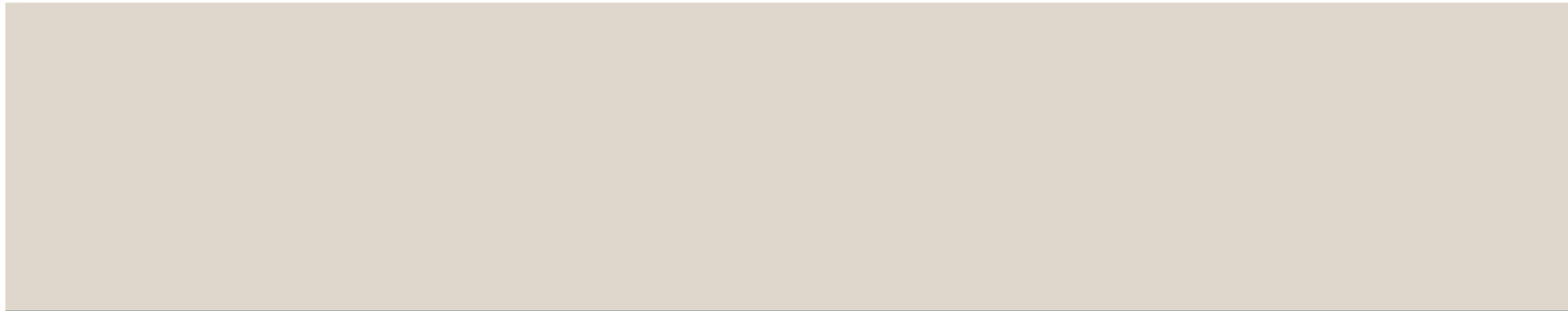
- High monitors benefit from either detailed information or a relaxation intervention when undergoing colposcopy
- Low monitors may display greater coping flexibility
  - Matching coping style and amount of information may not be as important for patients with a low monitoring coping style





NUI Galway  
OÉ Gaillimh

School of Psychology



NUI Galway  
OÉ Gaillimh

School of Psychology