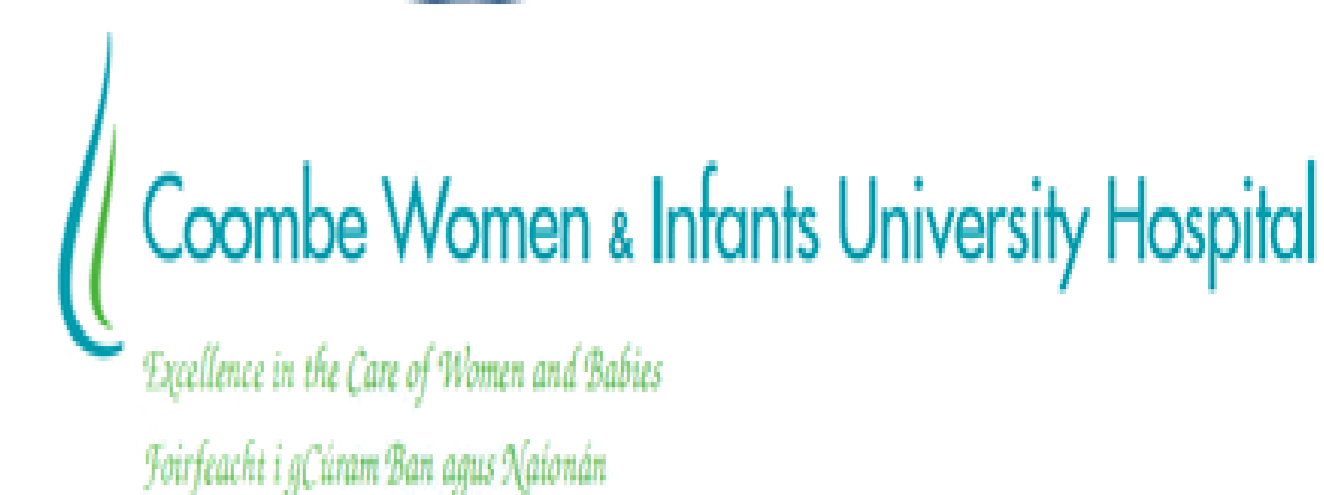


Associations between psychological and physical after-effects in women undergoing colposcopy and related procedures for follow-up for an abnormal cervical smear



National Maternity Hospital



M O'Connor¹, J Murphy¹, C White^{2,3}, C Ruttle³, C Martin^{2,3}, G Flannelly⁴, G von Bunau³, J O'Leary^{2,3}, L Pilkington³, M Anglim³, M Turner³, N Farah³, S Cleary³, T Darcy³, W Prendiville³, L Sharp¹ on behalf of the Irish Cervical Screening Research Consortium (CERVIVA)

¹National Cancer Registry Ireland, Cork Airport Business Park, Kinsale Road, Cork, Ireland; ²Trinity College Dublin, Ireland; ³Coombe Women and Infants University Hospital, Dublin, Ireland; ⁴National Maternity Hospital, Dublin, Ireland.

Background

If cervical screening is to be effective, women with low-grade abnormalities require follow-up. One common follow-up option is referral for a hospital – based colposcopy examination. In Ireland, in 2011, 17,437 women attended colposcopy for the first time, and an additional 20,769 attended follow-up appointments.¹

It is widely known that undergoing colposcopy and related interventions can be a distressing experience for women. Less is known about the psychological (e.g. anxiety, worries) and physical (e.g. pain, bleeding) after-effects and whether there are associations between the two.

Aims

In women undergoing colposcopy and related procedures, to estimate prevalence of anxiety, depression other psychological after-effects; estimate prevalence of physical after-effects; and explore inter-relationships between psychological and physical after-effects. The study involves assessments at three time-points – 4, 8 and 12 months after the initial colposcopy. Results reported here relate to the first assessment time-point (i.e. 4 months after initial colposcopy).

Methods

Setting and subjects: Women were recruited at two colposcopy clinics following referral for an abnormal smear result (mainly low-grade).

Survey instruments: A postal questionnaire was mailed to women approximately 4 months after colposcopy. Anxiety and depression was assessed by the Hospital Anxiety and Depression Scale (HADS²). The Process Outcome Specific Measure (POSM) was included to assess worries about cervical cancer, having sex and future fertility.³ Details of physical after-effects (pain, bleeding & discharge)⁴ experienced after the most recent clinic visit were also collected.

Analysis: 584 women were recruited. 425 completed questionnaires (response rate=73%). Prevalence of significant anxiety (HADS anxiety subscale score ≥ 11), significant depression (HADS depression subscale score ≥ 8) and worries were computed. Associations between anxiety, depression and worries and socio-demographic characteristics and physical after-effects were assessed by chi-square tests.

Results

Characteristics of respondents

28% of respondents were <30 years of age, 64% were aged 30-49 years and 8% were ≥ 50 years. 41% had completed tertiary education. Just under half (48%) were married or cohabiting. Half had children. One-third were current smokers. 57% had previously had another abnormal smear and 21% had previously had another colposcopy.

Prevalence of psychological after-effects

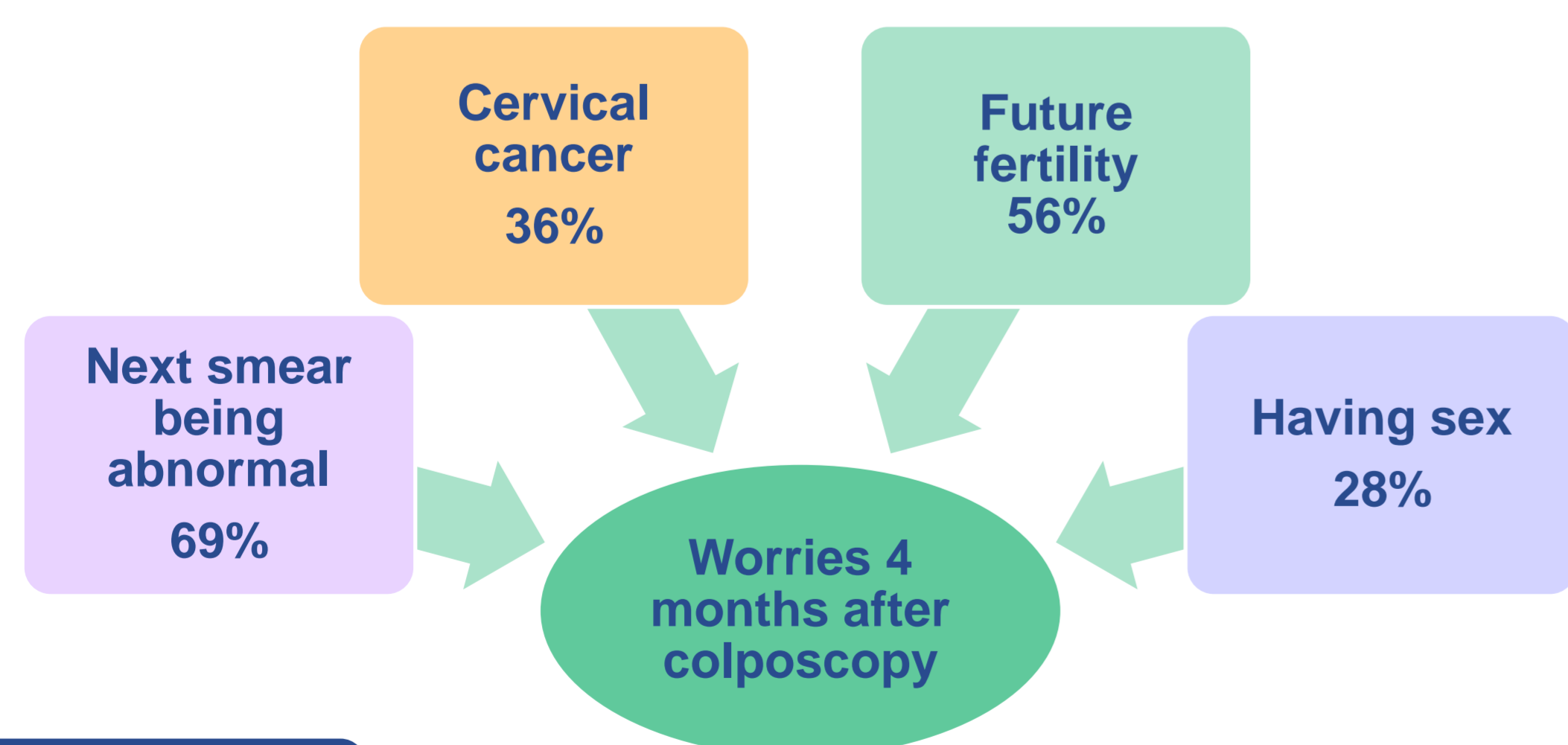
Anxiety: 21% of women had significant anxiety. Anxiety was significantly more frequent among unmarried women; it did not vary by age, education or having had a prior smear or prior colposcopy.

Depression: 8% of women had significant depression. Depression was significantly more frequent among women without tertiary education and current smokers; it did not vary by other socio-demographic or clinical factors.

Worries: Figure 1 shows the prevalence of worries reported by women.

- Prevalence of worries about cervical cancer was significantly higher among women with children and those without tertiary education.
- Future fertility concerns were more common among younger women (<30 years), women without children and those without tertiary education.

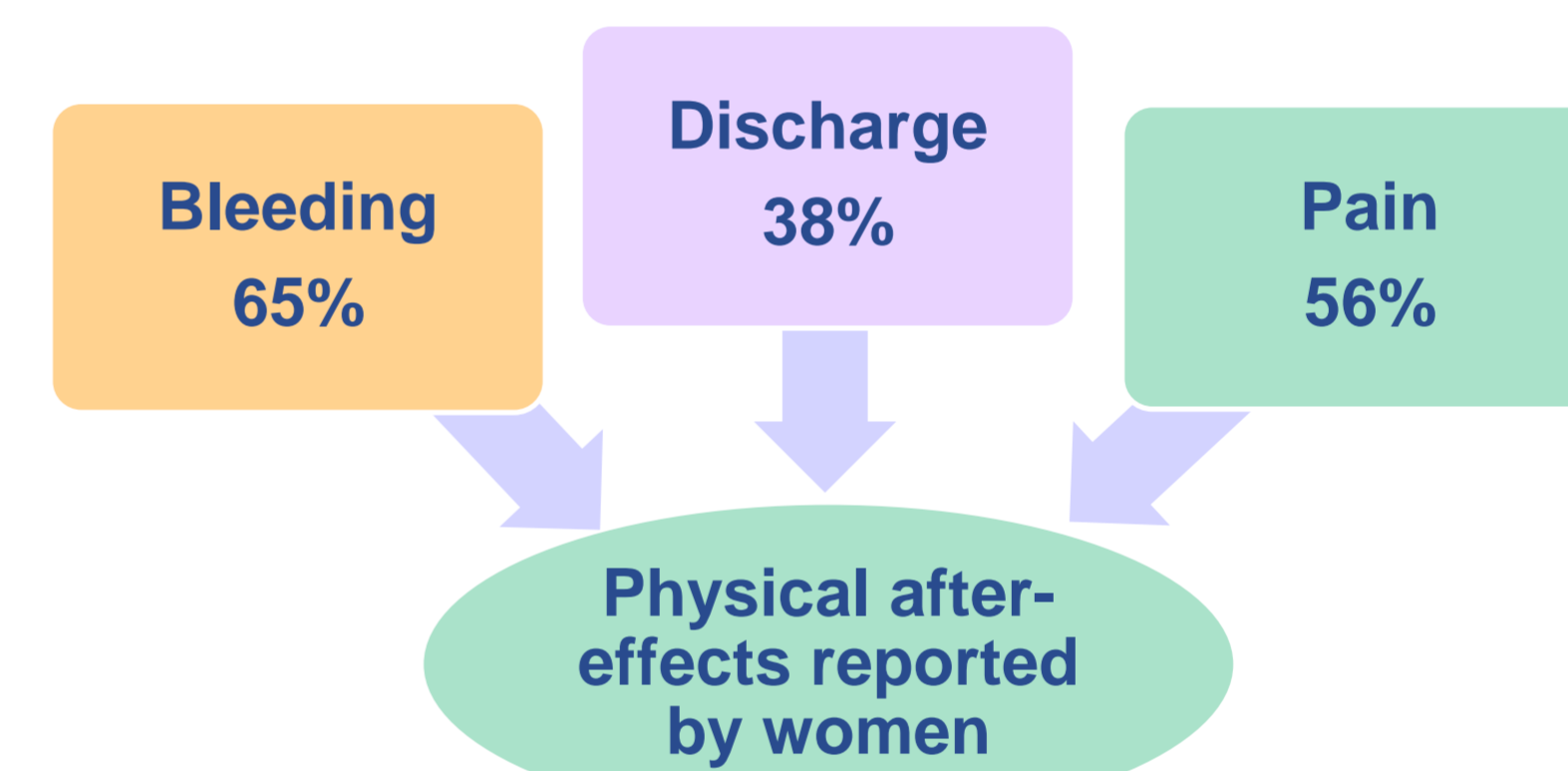
Fig 1: Prevalence of worries among women at 4 months



Prevalence of physical after-effects

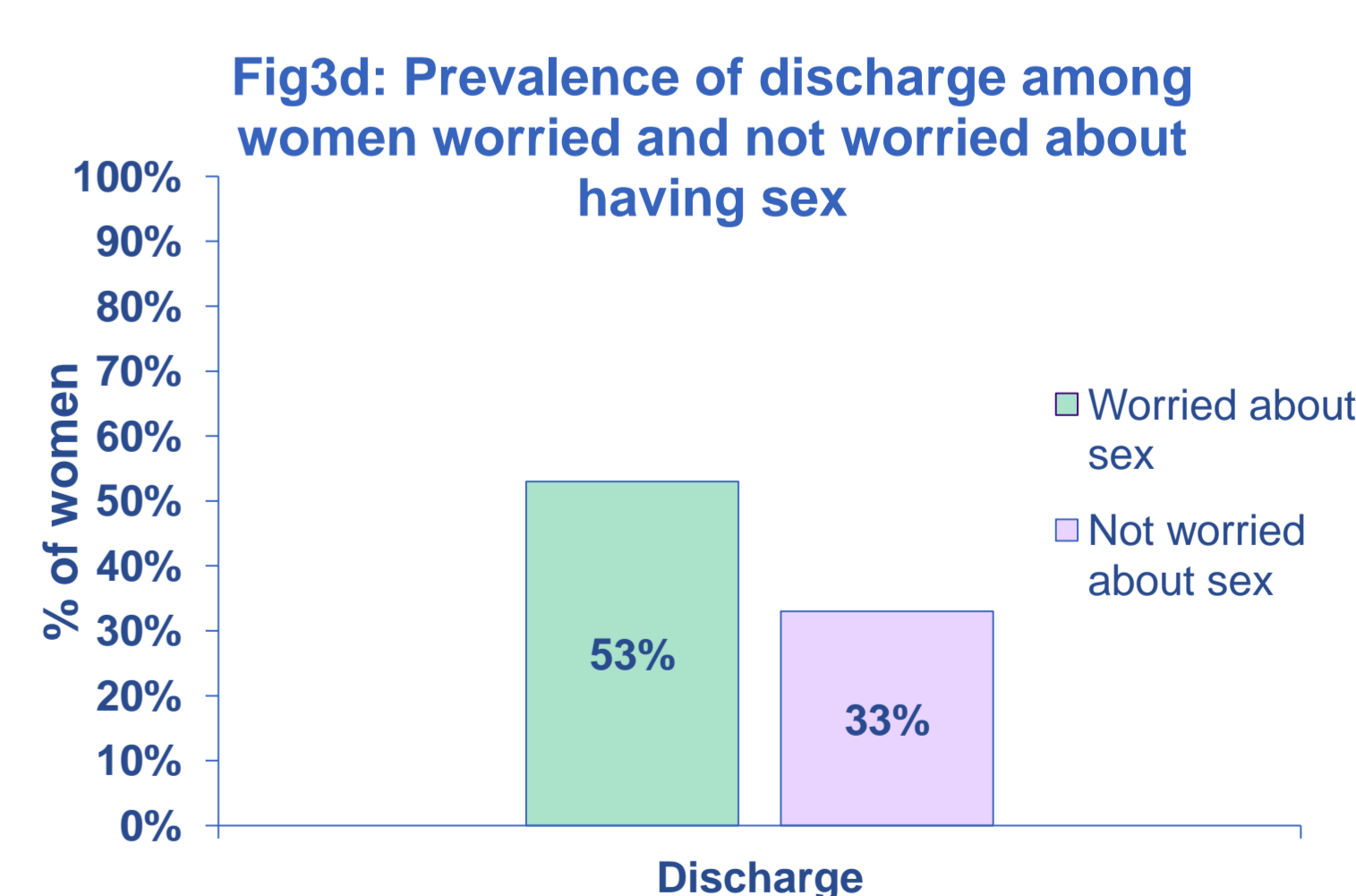
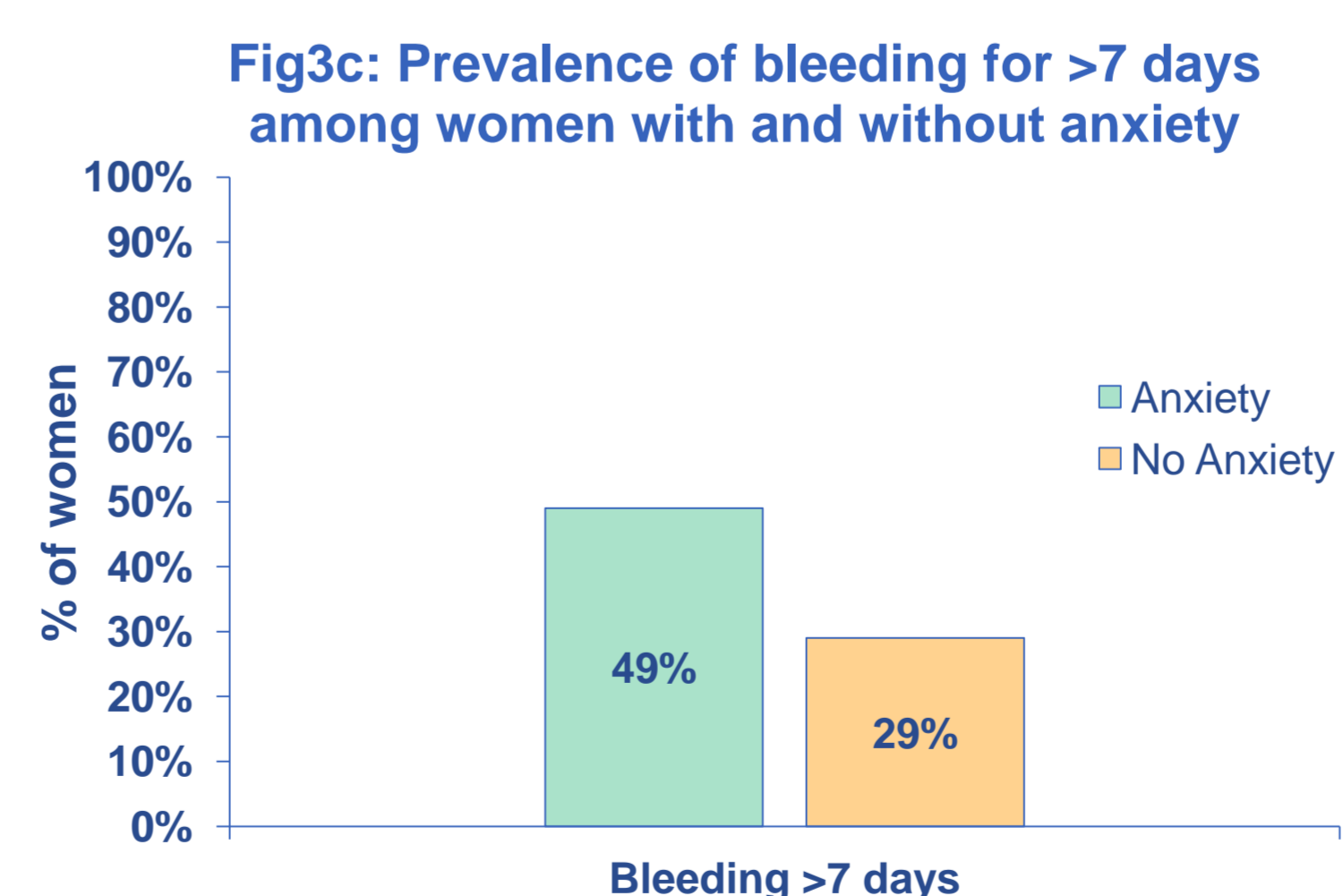
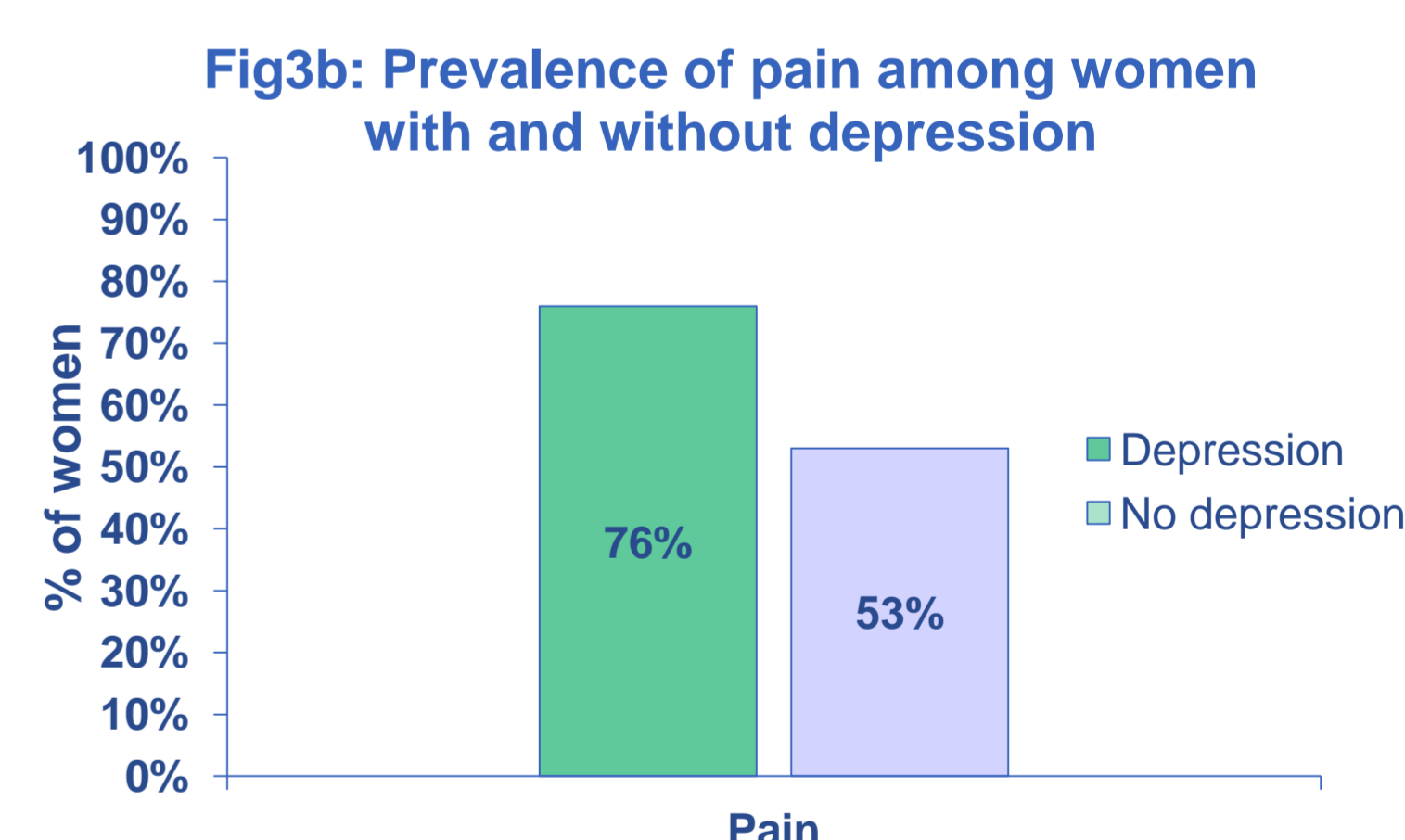
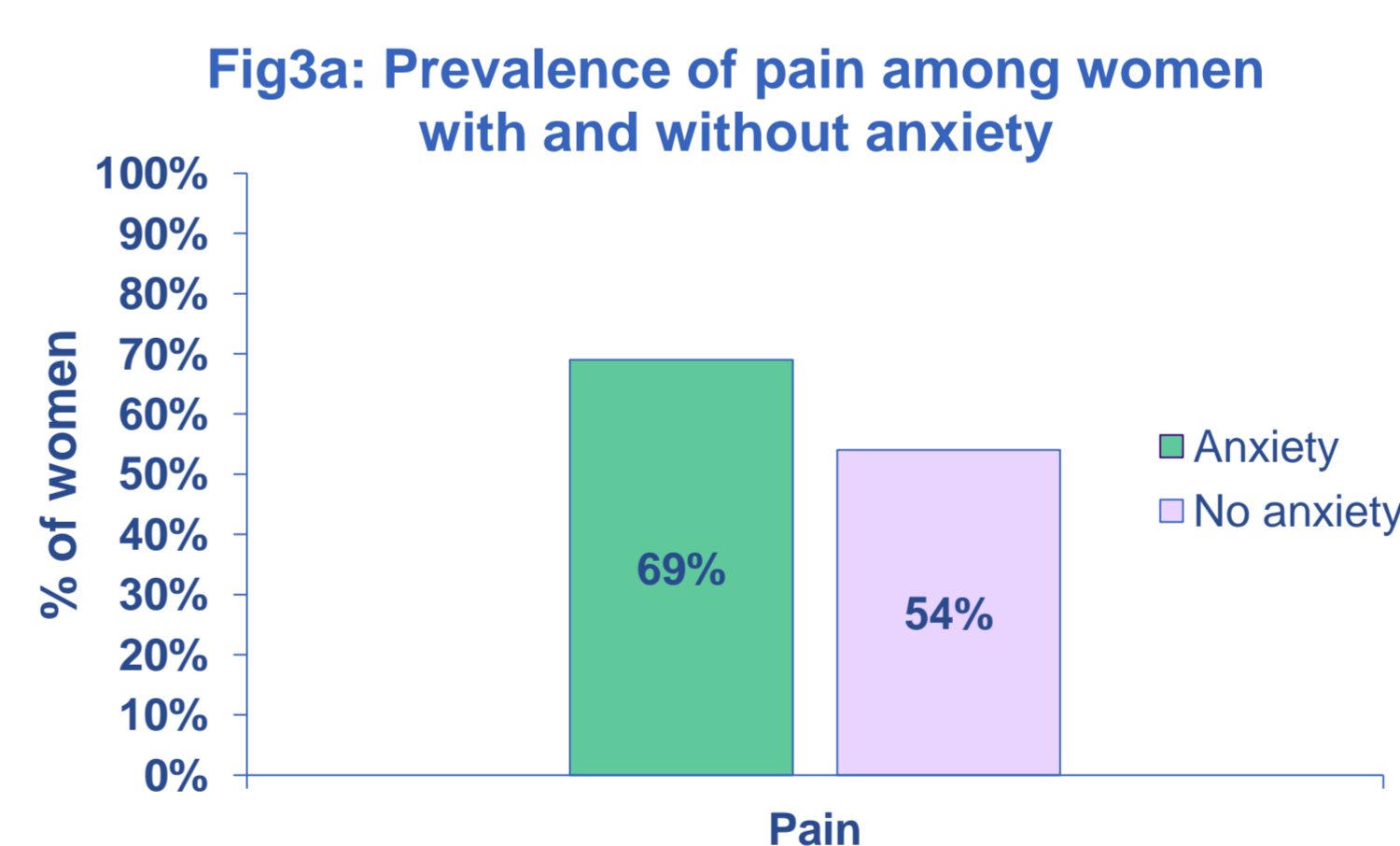
Figure 2 shows the prevalence of bleeding, pain and discharge among the women following their most recent clinic visit. 80% of women reported one or more physical after-effect.

Fig 2: Prevalence of bleeding, pain and discharge after colposcopy and related interventions



Inter-relationships between psychological and physical after-effects

Figure 3 summarises inter-relationships between physical and psychological after-effects.



Conclusions

High proportions of women report significant anxiety and depression and worries four months following colposcopy and related procedures. This is also true of physical after-effects. To our knowledge, this is the first study to investigate associations between psychological and physical after-effects. These findings suggest that the two are inter-related. Ensuring women are fully informed about the possibility of physical after-effects may help alleviate subsequent psychological distress.

This study adds to the accumulating evidence that colposcopy and related procedures can place a significant psychological burden on women. Interventions that reduce this burden and focus on women's concerns are required.

(1) Cervical Check Programme Report 2010-2011; (2) Snaith RP & Zigmond AS 1983, 192, 1994; (3) Gray N et al. Quality of Life Res 2005; 14: 1553-62; (4) TOMBOLA Group. BJOG 2009;116(11): 1506-14.