

**A protocol for a systematic review of effective therapeutic interventions and management strategies for challenging behaviour in women in Forensic Mental Health settings: a systematic review.**

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The systematic review is fully supported by the Directorate of Forensic Mental Health & Learning Disabilities, NHS Greater Glasgow and Clyde Health Board.

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<sup>1</sup> MG,ED,HT are responsible for writing the protocol with refinement and feedback from TM, SC, LP and CT.

## **Background**

### **Rationale**

Women in secure forensic mental health care require a service that provides them with high quality therapy tailored to their particular challenging complex needs. It is now recognised that, in forensic services, women are a minority group cared for in services that have been largely designed around their male counterparts. Previous criticism of services highlighted the historical tendency to concentrate women with complex needs in the highest security facilities, where the level of security was often beyond that which was required (Adshead & Morris 1995). This was recognised following the publication of policy documents and guidelines aimed at redesigning services, including in the forensic estate, around the specific needs of women, the reduction or withdrawal of female high secure beds and the increasing provision of female specific services at lower levels of security (DoH 2003; Forensic Network 2004). It has been argued that female forensic patients need less physical security than males, but greater relational and procedural security. The risks that female forensic patients present tend to be more quickly variable than in male forensic patients. This group of patient is a challenging one with different needs from other forensic patients. Working with them involves stresses and risks different from those typically presented by male forensic patients. Particular issues to be addressed with women forensic patients include: deliberate self-harm; other impulse control difficulties often associated with a lack of coping resources; effects of childhood abuse and neglect. While their index offences and forensic histories are often less serious than those of male patients they may be frequently among the more difficult patients to manage. This is because their behaviour can be chaotic and challenging, often including self-harm and/or problematic anger and aggression towards fellow patients and staff. Whilst female patients may have encountered similar aversive backgrounds and consequent needs or difficulties to male patients, the way they experience them and express them may be different. Given the specific challenges of this patient group, the impact on the staff working with them is also of interest. Guidelines suggest that gender-specific services should be co-located within forensic services more generally to optimise staff support and minimise the possibility of burnout.

This systematic review was proposed in response to a clinical need within a female ward in NHS GG&C FMHLD. A small number of female patients have presented with challenging behaviour consistently over a period of four years, suggesting that existing strategies and interventions have been unable to successfully manage these behaviours. The systematic review is being undertaken in response to this clinical need, to identify effective strategies or interventions for the management of challenging behaviour in women in secure services and, therefore, improve practice. A secondary aim would be to review the impact of strategies or interventions on the staff group caring for female forensic patients. The research will also contribute to a limited evidence base around what interventions and strategies can address these challenges that may to be specific to the female population within secure services.

### **Objectives**

To identify effective therapeutic interventions and management strategies for addressing challenging behaviour of women in forensic mental health settings.

## **Methods**

### **Types of studies**

Preliminary literature searches suggested that there are very few, if any, randomised controlled studies in this area. This may be due to the proportionately low numbers of females compared to males in secure settings. Consequently, this review will not be limited to only randomised controlled trials. For this reason we have decided to include the following types of studies: randomised control trials; qualitative studies; case control studies and cohort studies.

### **Types of participants**

We will include participants aged 18-65, female, who are in a forensic setting, for example low, medium or high security forensic mental health hospitals or IPCU. The sample will include forensic patients with a learning disability. We will exclude prisons. Male participants will only be included if they are part of a study that also assesses females and there is a separate analysis by gender. We will include participants who have demonstrated at least one of the following challenging behaviours: self-harm; violence; aggression. Participants where the only identified challenging behaviour is anorexia nervosa or bulimia nervosa will be excluded, however we will include those participants with the eating disorder: Pica. Where the challenging behaviour is focused around intimate partner violence (IPV) these participants will be excluded.

### **Types of interventions**

We will include all interventions that aim to address challenging behaviours in women in secure settings. These include all therapeutic interventions and management strategies. We will exclude interventions that have been used only with men.

### **Types of outcome measures**

#### **Primary outcome measure**

The primary outcome of interest is a reduction in the challenging behaviour of women following an intervention. This might include the number of incidents of challenging behaviour following an intervention compared to before the intervention.

#### **Secondary outcome measures**

We will also consider the impact of the intervention on staff, where data is available. This will include staff sickness levels/burnout, qualitative accounts of staff experiences and any other staff measures.

### **Search methods for identification of studies**

#### **Electronic searches**

We will search the following electronic databases in order to identify eligible studies for inclusion:

Medline Embase  
Amed  
Cinahl

Protocol

PsycInfo  
EBSCO Psychology & Behavioural Sciences Collection  
Cochrane Library  
ClinicalTrials.gov  
Campbell Library  
PILOTS  
BL Ethos

Papers will be restricted to date range 2006 - 2017 and English language due to resource limits. The Medline strategy will be developed by a Subject Specialist Librarian with input from the project team. The strategy will be peer reviewed by another Librarian who is not involved with the review. A draft Medline search strategy is included in Appendix 1. After the Medline strategy is finalised it will be adapted for the other databases.

The Mental Health Act Scotland 2003 came into effect in 2005. In 2003 the Department of Health, UK, published a report that recommended gender specific mental health services, including secure services and identified a number of areas that should be adapted to meet the specific needs of women in mental health services. By 2006, we might expect some of these recommendations to be visible in practice. Refworks reference management software will be used to manage the results for the review.

## **Data collection and analysis**

### **Selection of studies**

Once the search has been carried out, each review author will be given an equal number of abstracts/titles to screen against the inclusion criteria. Each author will be partnered with another review author, and they will also independently screen their partner's allocated abstracts/titles. The pair of review authors will then compare the eligible papers they have identified. Any disagreements will be discussed and resolved as a pair through accessing the full text or taking to the whole group for clarification. Those papers considered to be potentially eligible will then be accessed in full text. Each pair of authors will then be allocated a set of full text papers (that they have not seen before) to assess against the eligibility criteria. Each pair will assess full text papers independently and then discuss any differences. Authors of the studies will be contacted if any clarification is required. When a paper is excluded a reason will be recorded.

### **Assessment of risk of bias in included studies**

We do not expect to find many papers that adopt randomised control trials (as indicated by preliminary literature searches). However if any RCTs are identified we will adopt the risk of bias tool recommended by the Cochrane Handbook for Systematic Reviews of Interventions (Higgins and Green 2011). The following seven domains from this tool will be reported: random sequence generation; allocation concealment; blinding of participants and personnel; blinding of outcome assessment; incomplete outcome data and selective reporting.

The Downs and Black tool will be used to assess the methodological quality of non-randomised quantitative studies (Downs and Black 1998). The tool consists of 27 questions categorised under the following headings related to methodological quality for quantitative studies: reporting; external

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validity; internal validity (bias and confounding) and power. The total quality score is calculated from the answers to each question, with a total possible score of 32.

For any qualitative studies identified within the review, CASP (Critical Appraisal Skills Programme) will be used to assess their methodological quality. The CASP qualitative checklist contains 10 questions to assess the quality of qualitative studies.

Paired members of the review team will independently assess each paper for quality/risk of bias. Disagreements will be resolved by discussion between the pair of reviewers and if possible a third reviewer. Clarity will be requested from the paper author if necessary.

### **Data synthesis**

A PRISMA flow diagram will be used to demonstrate the number of papers initially identified by the search strategies, the number excluded after screening for eligibility and the final number of papers included in the review.

Preliminary searches suggested that there have been few if any randomised control trials have been carried out in this area. In addition the preliminary searches revealed a variety of study designs, therefore a meta-analysis is unlikely to be feasible for this review. A narrative/descriptive synthesis of the identified studies will therefore be adopted. The evidence from each paper will also be presented in summaries including the following: general study information (author/title/source/year); study design; participant characteristics; methodology; interventions; outcomes and space for general comments.

### **Data extraction and management**

A data extraction form will be used to record required data from each of the selected papers. Each eligible study will have data extracted by two reviewers independently to ensure accuracy. Any disagreements will be resolved via discussion and by contacting study authors if required. Data extracted will include: general study information (author/title/source/year); study design; participant characteristics; methodology; interventions; outcomes and space for general comments on paper.

## References

Adshead G & Morris F (1995) *Another time, another place*. Health Service Journal, 9 February, 24-6.

Forensic Network (2004) *Report of the services for women working group*. Forensic mental health services managed care network.

Department of Health (2003) *Mainstreaming Gender & Women's Mental Health*. HMSO

## Appendix 1

Search Strategy:

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- 1 Self Mutilation/ (3213)
- 2 Self-Injurious Behavior/ (6471)
- 3 Exposure to Violence/ or Workplace Violence/ or Violence/ (29790)
- 4 Aggression/ (31882)
- 5 Physical Abuse/ (124)
- 6 agonistic behavior/ or bullying/ (4130)
- 7 Sexual Harassment/ (1444)
- 8 Pica/ (1153)
- 9 Human Coprophagia/ (33)
- 10 Racism/ (1224)
- 11 Crime Victims/ (7471)
- 12 (self harm\* or self injur\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (10594)
- 13 sexual\* disinhibit\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (117)
- 14 (pagophagia or trichophagia or papyrophagia or metallophagia or lithophagia or geophagia or hyalophagia or coprophagia).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (612)

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- 15 ((verbal\* adj3 abus\*) or swear\* or expletive\* or obscenit\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1233)
- 16 ((disrupt\* or extreme\* or problem\* or unacceptable\* or inappropriate\* or abusive or distress\* or threat\* or challeng\* or intimidat\* or bully\* or violen\* or aggress\* or conflict\* or sexual\* or dangerous\* or hostil\* or antisocial) adj3 (behavio\* or action\* or conduct)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (159029)
- 17 (assault\* or hitting).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (14309)
- 18 victim\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (48067)
- 19 violen\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (63033)
- 20 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 (286736)
- 21 forensic psychiatry/ or "commitment of mentally ill"/ (14202)
- 22 Hospitals, Psychiatric/ (24983)
- 23 Psychiatric Department, Hospital/ (6343)
- 24 Inpatients/ (17388)
- 25 Hospitalization/ (90577)
- 26 exp Mental Disorders/ (1170827)
- 27 Mental Health/ (30061)
- 28 exp Intellectual Disability/ (92151)
- 29 mentally disabled persons/ or mentally ill persons/ (9343)
- 30 mentally disordered offender\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (282)
- 31 ((mental\* or learning or intellectual\*) adj3 (disab\* or disorder\* or handicap\* or retard\* or deficient\* or impair\* or ill\* or disease\*)).mp. [mp=title, abstract, original title, name of substance

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word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (318034)

32 ((compulsory or involuntary or civil) adj3 (admi\* or treat\* or commit\* or detention or detain\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (3139)

33 ((high or medium or low) adj3 secur\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1637)

34 ((forensic or secure) adj3 (patient\* or inpatient\* or client\* or unit\* or service\* or department\* or clinic\* or hospital\* or ward\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (5907)

35 (section\* or hospitali\* or inpatient\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1017417)

36 24 or 25 or 35 (1017417)

37 26 or 27 or 28 or 29 or 31 (1282285)

38 36 and 37 (111937)

39 21 or 22 or 23 or 30 or 32 or 33 or 34 or 38 (152257)

40 Women/ (15272)

41 Female/ (8019970)

42 wom?n.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1038290)

43 female\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (8155718)

44 girl\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (133350)

45 40 or 41 or 42 or 43 or 44 (8296212)

46 exp Drug Therapy/ (1251611)

47 exp Psychotherapy/ (183146)



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- 48 complementary therapies/ or exp mind-body therapies/ or exp biofeedback, psychology/ or exp breathing exercises/ or hypnosis/ or "imagery (psychotherapy)"/ or laughter therapy/ or meditation/ or mental healing/ or exp psychodrama/ or psychophysiology/ or relaxation therapy/ or tai ji/ or therapeutic touch/ or yoga/ or exp sensory art therapies/ or exp acoustic stimulation/ or exp aromatherapy/ or exp art therapy/ or exp color therapy/ or exp dance therapy/ or exp music therapy/ or exp play therapy/ (113963)
- 49 animal assisted therapy/ or equine-assisted therapy/ (324)
- 50 bibliotherapy/ or exercise therapy/ or occupational therapy/ or recreation therapy/ (45894)
- 51 exp Milieu Therapy/ (3032)
- 52 (sensory adj (integration or room\* or therap\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1202)
- 53 comfort room\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (10)
- 54 (positive behavi\* adj3 support\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (147)
- 55 trauma informed.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (348)
- 56 Allied Health Personnel/ (11104)
- 57 Physical Therapy Modalities/ or Physical Therapy Specialty/ (35621)
- 58 Physical Therapists/ (886)
- 59 language therapy/ or speech therapy/ (7445)
- 60 "speech and language therap\*".mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1486)
- 61 Nutritionists/ (780)
- 62 Patient Education as Topic/ (81924)
- 63 ((patient\* or service user\* or client\*) adj3 (educat\* or learn\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (112375)

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- 64 (physio\* or tai chi or yoga or meditat\* or psychodrama or psychophysiology or aromatherap\* or biofeedback or hypno\* or imagery or acoustic stimulation or bibliotherap\* or (breath\* adj3 (exercis\* or technique\*))).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1269943)
- 65 dieti?ian\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (6512)
- 66 (allied health profession\* or AHP or AHPs).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (4101)
- 67 ((drug\* or psycho\* or mental\* or pet\* or cat\* or dog\* or equine or horse\* or animal\* or danc\* or exercis\* or sport\* or music\* or art\* or occupational\* or recreation\* or complementary or relaxation or laugh\* or movement or environment\* or milieu or alternative or dialectical or cognitive or physical\* or diet\* or speech or language or mind-body or touch or sensory or colo?r or play) adj3 (therap\* or treat\* or intervention\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (900346)
- 68 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 (3272449)
- 69 Police/ (4377)
- 70 Criminal Law/ (5473)
- 71 Law Enforcement/ (3287)
- 72 Patient Participation/ (22546)
- 73 Noise/ (19289)
- 74 Crowding/ (2772)
- 75 "Hospital Design and Construction"/ (9827)
- 76 health facility environment/ or patients' rooms/ (6542)
- 77 Diagnosis-Related Groups/ (10946)
- 78 "Attitude of Health Personnel"/ (108883)
- 79 Health Knowledge, Attitudes, Practice/ (96046)
- 80 Staff Development/ (8577)
- 81 Clinical Competence/ (79268)

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82 Organizational Culture/ (15884)

83 relational security.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (15)

84 ((rapid\* adj3 tranquili\*) or (intramuscular adj3 sedat\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (177)

85 Restraint, Physical/ (11646)

86 Immobilization/ (13160)

87 Patient Isolation/ (3628)

88 (de-escalat\* or deescalat\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1352)

89 professional-patient relations/ or nurse-patient relations/ or physician-patient relations/ (127913)

90 Leadership/ (37702)

91 (clinical adj3 leader\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1687)

92 criminal\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (27788)

93 ((organi?ation\* or staff\* or unit\* or service\* or department\* or clinic\* or hospital\* or ward\* or social or profession\*) adj3 (culture\* or climate\* or value\* or environment\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (167250)

94 (limit\* or boundar\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (1454731)

95 (seclu\* or time out\* or observation\* or ((manual\* or mechanical\* or emergency or physical\* or chemical\*) adj3 restrain\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (805006)

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- 96 (behavio?r adj3 manag\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (3190)
- 97 (containment adj3 control\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (188)
- 98 (prosecut\* adj3 (patient\* or service user\* or client\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (45)
- 99 ((engagement or participat\*) adj3 (patient\* or service user\* or client\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (44636)
- 100 servicescape\*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (5)
- 101 ((nois\* or loud\* or crowd\* or busy\* or design\* or architect\* or accommodation) adj3 (unit\* or service\* or department\* or clinic\* or hospital\* or ward\* or room\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (51621)
- 102 ((patient\* or service user\* or client\*) adj3 (mix or characteristic\* or factor\* or diagnosis)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (191779)
- 103 ((client\* or patient\* or service user\*) adj3 (relationship\* or bond\* or rapport\* or trust\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (41725)
- 104 ((staff\* or doctor\* or physician\* or nurse\* or clinician\* or therapist\* or psychologist\* or profession\* or psychiatrist or physio\* or dieti?ian\*) adj3 (training\* or skill\* or attitude\* or support or gender mix or number\* or debrief\* or reflective practice or clinical supervis\* or post incident or proactive)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] (74252)
- 105 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 or 104 (3065055)
- 106 68 or 105 (5863199)

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107 20 and 39 and 45 and 106 (4758)

108 limit 107 to english language (4365)

109 limit 108 to yr="2006 -Current" (2482)

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