



Purchasing Over The Counter Medicinal Products Containing Codeine - Easy Access, Advertising, Misuse and Perceptions of Medicinal Risk



S Dada

J Wells, M Bergin, MC Van Hout, P McGuinness, J du Plessis, E Rich, R Wells, M Gooney

SACENDU Meeting Pretoria - 23rd October 2018

INTRODUCTION

- Codeine (3-methylmorphine) is a weak opioid, widely used for its analgesic, antitussive and antidiarrheal properties.
- Commonly used to manage mild to moderate pain, it is available in low dose over-the-counter (OTC) medicinal products in a number of countries (1-2).
- OTC purchase of codeine based analgesic products without medical consultation occurs in many countries and even in countries where it is regulated, purchase and use is considerable (3).
- Deregulation has led to increased customer access, choice, self-medication and pharmacist empowerment with regards to codeine and nonopioid analgesic dispensing (4,5,6).
- Consequently, the misuse of these products appears to be on the increase (2,7); with access to open purchase lessening the consumers' ability to recognize problematic use and dependency (9-10).

INTRODUCTION

- Public perception and possibilities for opioid tolerance within a short timeframe contributing to habitual use, misuse and dependence (8).
- Research indicates OTC analgesics and other codeine based medicinal products are frequently taken inappropriately and that consumers are generally unaware of the potential of the physical harms that can result (12-14, 4).
- There is little comparative international data exploring differences in customer use, sources of information and knowledge of OTC codeine containing products between countries which allow non-prescription purchase.
- This paper reports on a study that aimed to address this gap through a survey of customers purchasing such products at participating community/ commercial outlet pharmacies in Ireland, South Africa and England

METHODS

- **Study design:** Explorative, cross sectional design, collecting data from consumers at the point of purchase at pharmacies.
- **Participants:** 18+ years old and able to read in English, purchasing OTC medicinal products in pharmacies in Ireland; SA and England at the time of survey.
- **Instrument:** A self-administered 18 item questionnaire consisting of closed-, open-ended questions covering demographics; use of OTC codeine containing medicines; purchasing patterns of such products; views on their safety and availability.
- Ethical approval was received from research institutions in the three countries; SAMRC ethics committee for South Africa
- The survey was anonymous and no individuals could be identified through their responses.
- **Data analysis:** SPSS statistical package v.22 was used; to examine relationships between demographics, use of OTC codeine containing products and knowledge pertaining to where to purchase – Pearson chi-square for bivariate analysis was conducted.

RESULTS

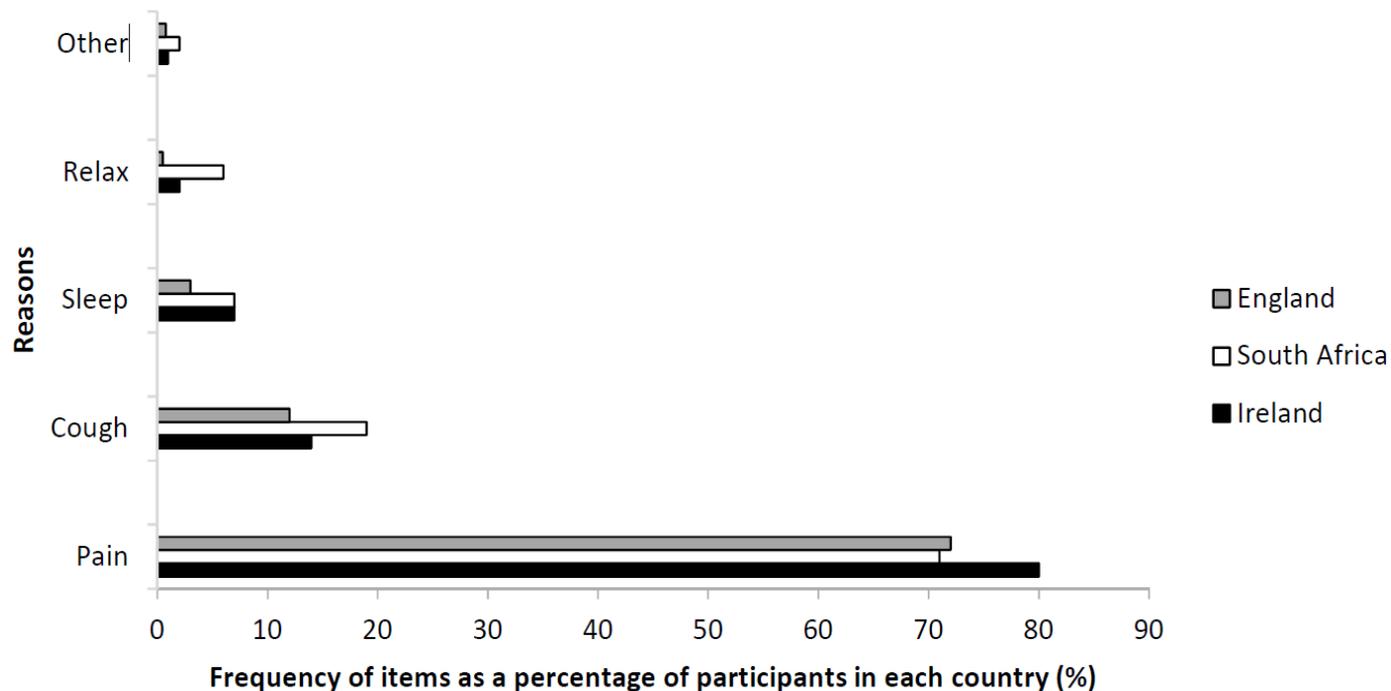
N = 1230	Ireland (n = 328)	South Africa (n = 665)	England (n = 237)
Gender			
Male	80 (25%)	266 (42%)	95 (41%)
Female	243 (75%)	374 (58%)	139 (59%)
Age			
18-30	112 (34%)	188 (28%)	65 (27%)
31-50	143 (44%)	305 (46%)	88 (37%)
51+	70 (21%)	170 (26%)	86 (36%)
Marital status			
Married	174 (54%)	359 (56%)	137 (58%)
Never married	107 (33%)	163 (25%)	45 (19%)
Divorced/widowed	40 (13%)	121 (19%)	50 (21%)

RESULTS

N = 1230	Ireland (n = 328)	South Africa (n = 665)	England (n = 237)
Education			
Primary school	10 (3%)	16 (2%)	4 (2%)
Secondary school	105 (32%)	360 (55%)	109 (47%)
Any tertiary	209 (65%)	279 (43%)	120 (51%)
Employment			
Employed	231 (71%)	483 (73%)	141 (60%)
Unemployed/homemaker	57 (17%)	92 (14%)	48 (20%)
Retired	18 (6%)	55 (8%)	39 (16)
Student	20 (6%)	29 (5%)	7 (3%)

RESULTS (1)

Reasons for taking codeine containing products



RESULTS (2)

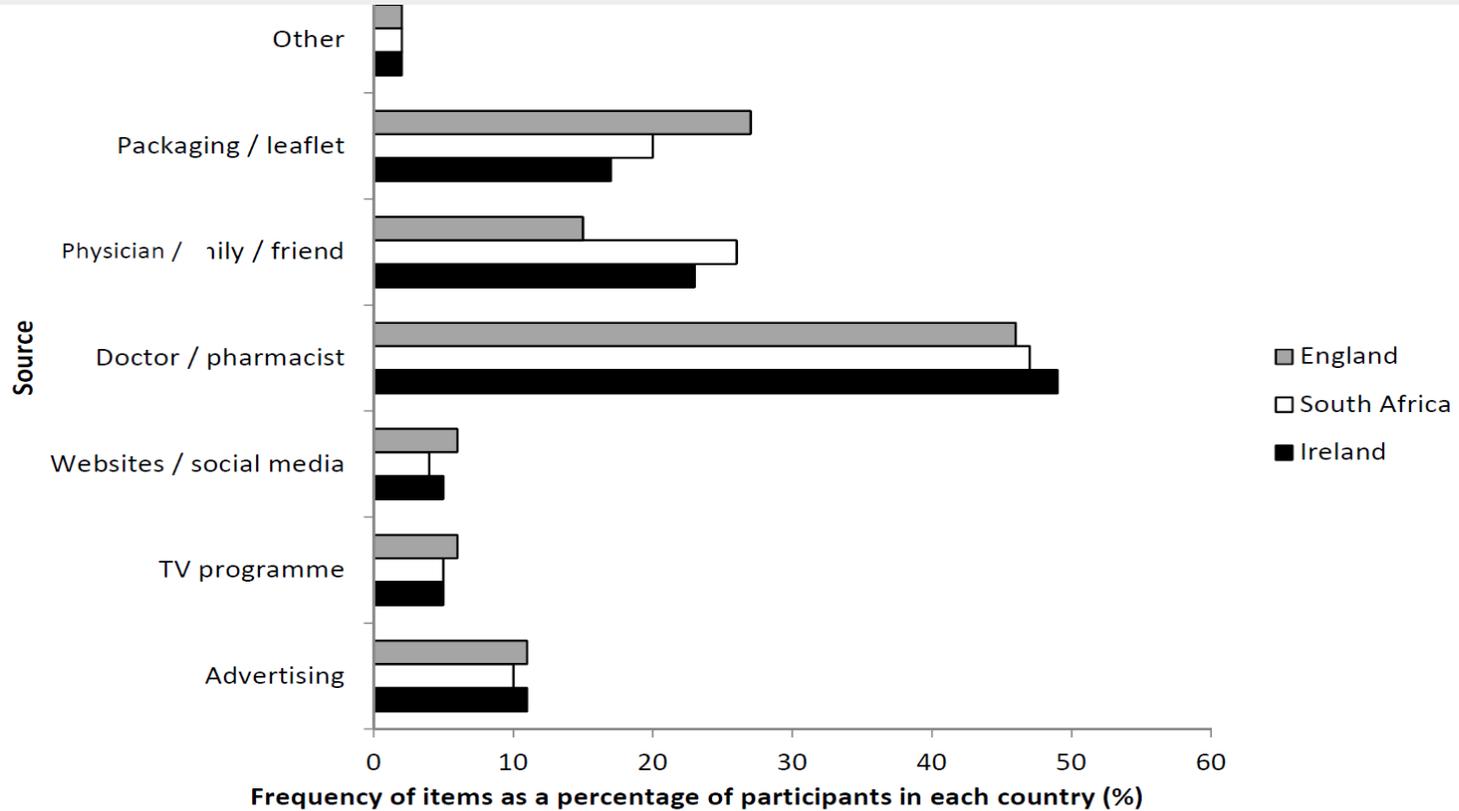
Table 3. Purchase of medicine containing codeine containing products

	Ireland ^a (N=328)		South Africa ^a (N=665)		England (N=237) ^a	
	n	%	n	%	n	%
Purchased in the last year						
Yes	202	63	471	74	115	48
No	84	26	163	26	101	43
Don't know	34	11	0	0	21	9
Where do you purchase						
Local pharmacy	212	65	487	73	107	45
Supermarket	16	5	---	---	29	12
The internet	1	0.3	3	0.5	0	0
Other	0	0	9	1	0	0
Frequency of purchase						
Every day	2	1	27	5	2	2
Weekly	13	6	65	13	20	16
Monthly	52	23	158	32	27	22
Very occasionally	136	63	206	41	68	56
Never buy it	6	3	6	1	3	3
Don't know	8	4	37	8	2	1

^a Some percentages calculated using denominator less than stated total due to missing data

RESULTS (3)

Sources of information



RESULTS (4)

Table 4. Knowledge relating to codeine containing products

Statements	Ireland ^a (N=328)	South Africa ^a (N=665)	England ^a (N=237)
	Mean (±SD) n (%)	Mean (±SD) n (%)	Mean (±SD) n (%)
Medicine containing codeine is effective	1.12 (0.84) 251 (79)	0.97 (0.97) 437 (73)	0.96 (0.71) 177 (80)
Medicine containing codeine is safe to use	0.53 (0.90) 177 (58)	0.52 (1.0) 310 (52)	0.51 (0.90) 114 (54)
Medicine containing codeine should be available on prescription only	0.02 (1.16) 99 (32)	-0.21 (1.30) 180 (30)	0.21 (1.11) 84 (39)
Prolonged use of medicine containing codeine is harmful	0.98 (0.96) 210 (67)	0.57 (1.11) 271 (45) ***	0.82 (0.92) 133 (62)
Medicine containing codeine is addictive	0.91 (0.97) 195 (63)	0.39 (1.05) 315 (52) ***	0.80 (0.96) 127 (60)

*** $p < 0.001$

^a Some percentages calculated using denominator less than stated total due to missing data

DISCUSSION

- The literature indicates that patients develop an iatrogenic codeine dependence as a result of initially taking this medication to manage pain stress, anxiety or help them sleep (1-2).
- The management of family centered stresses tends to fall upon women (30) and OTC codeine containing products provide an accessible distress intervention.
- Availability and easy access to codeine containing medicine greatly reinforces perceptions of harmlessness and willingness to seek out and use the product regularly (4-6).
- The majority of respondents purchased these products in local pharmacies; however, it should be noted that as the survey was conducted in community pharmacy outlets this sample may be likely to state that they purchased these products in the pharmacy and not elsewhere (e.g. online).

DISCUSSION

- These results suggest that comparative cultural aspects of OTC use need to be further examined.
- This is further reinforced considering the substantial difference between the three countries in using combination analgesics, with 94% of English respondents using these analgesics compared to 64% and 55% in Ireland and South Africa respectively.
- In all three countries the most commonly bought products are amongst those with a high brand recognition; however, research on the relationship between advertising and use of OTC products needs to be further examined within the context of people developing dependency.
- Insert leaflets are often not consulted by consumers and advertising's role is considerable in terms of information reception (19-21)

STUDY LIMITATIONS & CONCLUSION

- This study has several limitations and hence interpretations should be treated with some caution.
- The inability statistically to generalize findings due to the sampling method selected is also recognized
- However, as the study was exploratory in nature, it was deemed as the most appropriate choice to possess a better description of the relative characteristics of the general population involved in the study.
- The survey highlights that cultural differences in perceptions, knowledge seeking and communicating with regard harms and harm reduction, should be examined in further research.

THANK YOU!!!

- We acknowledge the funding received by the CODEMISUSED Project from the European Community's Seventh Framework Programme *FP7/2007-2013* under the grant agreement number 611736.