Designing Effective Cigarette Health Warning Labels for Women in China: Findings from a Four City-Study

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Background

- It is estimated that less than 3% of Chinese women smoke cigarettes, compared to 37% of Chinese men
- Despite this relatively low prevalence, China has the second greatest population of women who smoke. Pictorial health warning labels (HWLs) on cigarette packages is an important tobacco control policy
- Currently China uses text-only HWLs
- The following study assessed perceived effectiveness of pictorial HWLs to support smoking cessation (smokers) or the prevention of smoking initiation (non-smokers)

Methods

- Adult women non-smokers (n=39) and smokers (n=165) were recruited from 4 cities in China (Beijing, Shanghai, Kunming, and Wuhan) in 2016
- Participants were randomly assigned to one of four HWLs based on design features including:
    - depictions of harm (to the smoker OR to "others" from secondhand smoke), and
    - textual framing (factual, as in 'smoking causes lung cancer', or personal as in 'smoking caused my lung cancer')
- HWLs were rated by effectiveness of the label at discouraging smoking initiation (non-smokers) or supporting smoking cessation (smokers); a 10-point scale was used, with 10 being the most effective

Smoking causes blindness.

Smoking causes asthma in others.

Smoking caused my mouth cancer.

My smoking caused her lung cancer.

Health Effect	Blindness	Asthma	Mouth Cancer	Lung Cancer
Who impacted	Smoker	Others	Smoker	Others
Text	Factual	Factual	Personal effects	Personal effects
Image	Clinical	Personal suffering	Clinical	Clinical

Non-smoking Respondents (Women)

Health Warning Labels	Non-Smoking Respondents Mean rating (n)	Smoking Respondents Mean rating (n)
HWLs – health impact on the smoker, with factual text	7.6 (12)	6.9 (45)
HWLs – health impact from the secondhand smoke on the 'other', with factual text	8.0 (7)	6.8 (45)
HWLs – health impact on the smoker, with personal effects text	8.1 (9)	6.7 (38)
HWLs health impact from secondhand smoke on the 'other', with personal effects text	7.5 (11)	7.4 (36)

Results

- Survey respondents who were smokers rated the HWL with impacts on "others" using personal text the highest (mean rating 7.4), and rated HWLs with health impacts on smokers using personal text the lowest (mean rating 6.7)
- Survey respondents who were non-smokers rated the HWL with depictions of harm to smokers, using personal texts the highest rating (mean rating 8.1), and rated the HWL with depictions of harm to "others" using personal text the lowest (mean rating 7.5)

Conclusions

- The evidence from this study indicates that pictorial HWL content is important to improve the effectiveness of encouraging smoking prevention and cessation among women in China
- Having a variety of labels in rotation with a range of depictions of harm and different textual framing will help improve effectiveness among women who are smokers and non-smokers

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