

Comprehensibility, clarity, and usability of over-the-counter medication labels: Consumers' perspectives and needs in Taiwan

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Background One-third of preventable medication errors in the US was estimated to be stemmed from misunderstanding of use instructions. The question of how consumers in Taiwan comprehend and navigate drug product labels, especially instructions appeared on over-the-counter (OTC) medication packages, is as yet to be discovered.

Purpose To evaluate comprehensibility, clarity, and usability of OTC package labels from consumers' perspectives to guide user-friendly and quality designs.

Method This cross-sectional study was conducted through a face-to-face survey at 29 community pharmacies. Eligible participants were age older than 20 years, Mandarin-speaking, and with the need of acquiring a specific OTC product at the study sites. At each encounter, trained pharmacy students administered questionnaires to understand consented participants' behaviors towards (1) frequency of reading OTC package labels, (2) kind(s) of label information read before taking (applying) a medication; and perspectives regarding the purchase of a particular OTC product, including (3) reason(s) of selection, (4) comprehensibility of the label instructions on the package, (5) additional information needed to enhance appropriate use, and (6) opinions for label design improvements. Descriptive statistics, chi-square test, and independent t test were applied for data analysis.

Findings Of 519 participants, the mean age from the 470 valid questionnaires was 40.7 (SD, 17.6) years; 56.8% were female and 64.7% had a bachelor (or, an associate) degree or higher. A total of 395 (84.0%) participants, always (58.1%) or sometimes (26.0%), read instruction labels before use. The most read information were indications (uses; 79.4%), drug names (64.5%), and dosage and administration (directions; 59.8%). Interestingly, only 141 (30.0%) fully understood how to take their selected medications correctly. Pharmacist's recommendation (51.3%), brand reputation (33.2%), and price (28.1%) were the top reasons for selecting the particular OTC medications. Other than the needs of more precise information, participants also suggested that package information could be redesigned with larger fonts (28.9%), provision of more Chinese instructions (5.7%), and pictorial illustrations (5.3%).

Conclusion Printed instructions on OTC medication packages provide clients with important information of proper medication use. Pharmacists should recite pertinent label information and ensure consumers' understanding of label information when providing medication use counseling. Future refined package information is also awaited for taking account of consumers' needs.