Quantity–Frequency (QF) Methods

BRIEF DESCRIPTION

QF methods are among the earliest measures to assess alcohol consumption. These methods, of which there are many variants, are known as estimation formulae because they ask people to report their "average" consumption pattern—to estimate (i.e., *average*) on how many days per week they drank, and how much they *typically* consumed on a given drinking day. Drinking parameters (e.g., total amount consumed,mean number of drinks per day) are calculated based on the aggregate questions (e.g., "How many days *on average*—in a specified time interval—did you drink beer, and when you drank beer, *on average* how many beers did you drink?"). Such methods usually do not inquire about occasional high- and low-drinking days, and many do not correct for days when more than one type of alcoholic beverage was consumed (e.g., three beers and two glasses of wine on the same day). QF methods are most useful when time is limited and information about atypical drinking is not required. Although variants of QF methods have been designed to have more clinical utility (i.e., to include questions addressing multiple beverage use and extremes of drinking), these modified QF procedures can take 10 to 15 minutes to collect drinking information over the past 90 days. This negates the major advantage of the QF methods—their brevity.

TARGET POPULATIONS

Multiple drinker populations—alcohol abusers, normal drinkers, college students, and males and females

ADMINISTRATIVE ISSUES

Number of items: *Variable, depending on the QF method selected*

Number of scales: *Not applicable*

Format: *Pencil-and-paper*

Time required for administration: *Depends on the instrument*
(e.g., 4 to 10 minutes = Khavari Alcohol Test;
20 minutes = Lifetime Drinking History;
30 to 60 minutes = Volume-Pattern Index)

Administered by: *Self*

Training required for administration: *Minimal*

SCORING

Time required to score/interpret: *5 minutes to score or assign a QF category*

Scored by: *Interviewer*

Scoring instructions: ☒ yes ☐ no

Computerized scoring or interpretation available: ☐ yes ☒ no

Norms available: *Not applicable*

PSYCHOMETRICS

Have reliability studies been done: ☒ yes ☐ no

What measures of reliability were used? *Test-retest*

Have validity studies been done? ☒ yes ☐ no

What measures of validity have been derived?

☒ Content

☒ Criterion (predictive, concurrent)

☒ Construct (QF methods compared with different daily drinking recall methods; daily recall methods provide more useful data)

CLINICAL UTILITY OF INSTRUMENT

Although QF methods can provide reliable information about total consumption and number of drinking days, they usually do not inquire about occasional heavy and light consumption days. Moreover, for clinical populations, days of sporadic heavier drinking, which are associated with alcohol–related problems, tend to go unreported in QF estimates (i.e., they are not part of the "average" or "typical" pattern).

RESEARCH APPLICABILITY

Generally, reports from QF indices reflect less drinking and they tend to misclassify drinkers compared with daily diary reports or Timeline reports For example, 31 percent of heavy drinkers as identified by their daily diary reports were classified as moderate drinkers by a QF method (Flegal, 1990). In another study, the QF methods failed to detect 78 percent of heavy drinkers identified by daily diary reports (Redman et al., 1987). One survey study, in particular, illustrates the problems with QF measures (Fitzgerald & Mulford, 1987). This study showed that after asking a routine set of QF questions, the addition of seven questions inquiring about atypical drinking resulted in 35 percent of all adults surveyed reporting additional drinking. Moreover, "the addition of atypical drinking to ordinary consumption increased the total consumption estimate for adults by 14%" (p. 208: Fitzgerald & Mulford, 1987). Another study compared a usual QF measure (two questions) with the Graduated-Frequency (GF) measure and showed that the GF measure provided higher estimates of alcohol use than the usual measure (Midanik, 1994).

SOURCE

Copyright: ☐ yes ☒ no

Cost: *None*

Source: *Available from different sources (see references below)*

SUPPORTING REFERENCES

Greenfield, T.K. (2000). Ways of measuring drinking patterns and the difference they make: Experience with graduated frequencies. *Journal of Substance Abuse, 12*, 33-49.

Room, R. (2000). Measuring drinking patterns: The experience of the last half century. *Journal of Substance Abuse, 12*, 23-31.

Rehm, J, Greenfield, T.K., Walsh, G., Xie, X., Robson, L. & Single, E. (1999). Assessment methods for alcohol consumption, prevalence of high risk drinking and harm: A sensitivity analysis. *International Journal of Epidemiology, 24*, 929-936.

Romelsjo, A., Liefman, H. & Nystrom, S. (1995). A comparative study of two methods of the measurement of alcohol consumption in the general population. *International Journal of Epidemiology, 24*, 929-936.

FOREIGN LANGUAGE VERSIONS AND HOW TO OBTAIN

Spanish Contact: cisma@imp.edu.mx or medinam@imp.edu.mx