Statistical Snapshot of My Life as a Substance Abuse Counselor

A substance abuse counselor's daily life is characterized by interactions with clients with different demographic backgrounds and different problems. Hence, being an effective counselor entails being able to utilize tools that allow me to understand the specific contexts of clients in order to assist them in solving problems within the constraints of their actual situation. Hence, a substance abuse counselor's daily life is made easier by statistical tools which allow me to systematically process client information, identify trends and relationships between client characteristics and problems, and utilize results in facilitating client understanding of their own problems.

The value and importance of statistics in the daily life as a counselor lies in its ability to present data in a way that enables the counselor to derive meaningful interpretations. The demographic profile and addiction problems of my past and current clients, for instance, can be represented as a data set as illustrated below:

Table 1 Client Demographic Profile and Addiction Type

Client	Age	Gender	Educational Attainment	Employment Status	Addiction Type
1	22	Male	High School	Part-time	Metamphetamine
2	16	Male	High School	None	Alcohol
3	13	Male	Grade School	None	Tobacco
4	15	Female	Grade School	None	Tobacco
5	33	Female	High School	Part-time	Metamphetamine
6	32	Male	College	Full-time	Alcohol
7	28	Female	College	Full-time	Tobacco
8	18	Male	High School	None	Metamphetamine
9	23	Female	College	Part-time	Alcohol
10	42	Male	High School	Full-time	Alcohol
11	18	Male	Grade School	Part-time	Metamphetamine
12	35	Female	High School	Part-time	Alcohol
13	33	Male	High School	Full-time	Alcohol
14	40	Male	Grade School	Full-time	Alcohol
15	49	Male	College	Full-time	Alcohol

Measures of Central Tendency

Table 2 Client Age

Client	Age
1	13
2	15
3	16
4	18
5	18
6	22
7	23
8	28
9	32
10	33
11	33
12	35
13	40
14	42
15	49

The data set above, however, provides little meaningful information for me in terms of understanding the trends in my clients' contexts so I rearrange the data set around client age. The restructed data set is shown in the table on the left (Table 2).

Next, I utilize measures of central tendency to gain a wider perspective on client characteristics. I calculate for the mean, median, and the mode of my clients' ages. Calculating for the mean allows me to determine my client's average age while the mode shows me the most frequently occuring age. Similarly, the median shows me "the value the middle of the set of ranked data" (Angel, Abbott, and Runde, 2007, p. 862).

The result of my calculations shows that the average age of my clients is 27.8 years, that there are two frequently occuring ages among my clients, and that the median among my clients' ages is 28. Table 3 illustrates the values for the measures of central tendency based on client age.

Table 3 Measures of Central Tendency Based on Client Age

| Measure	Formula	Value
Mean	$$\bar{X} = \frac{\sum_{i=1}^{n} X_i}{n}$$ *formula taken from Pennsylvania State University(2007)	27.8
Mode	Value that occurs with the highest frequency	18, 33
Median	Value at the middle of the ranked data	28

Frequency Distribution and Percentage

Moreover, in order to easily make sense of the demographic data of my clients, I can arrange their data and create graphic representations of their distribution based on the frequency and percentage of their demographic profile values.

Table 4 shows that majority of my clients are in the 28 to 33 age range, which makes up 27 percent of the population of all my clients.

**Table 4 Frequency Distribution and Percentage of Clients Based on Age**

Age	Frequency (n)	Percent	Cumulative Percent
10-15	2	13%	13%
16-21	3	20%	33%
22-27	2	13%	47%
28-33	4	27%	73%
34-39	1	7%	80%
40-45	2	13%	93%
46-51	1	7%	100%
Σ	15	100%	
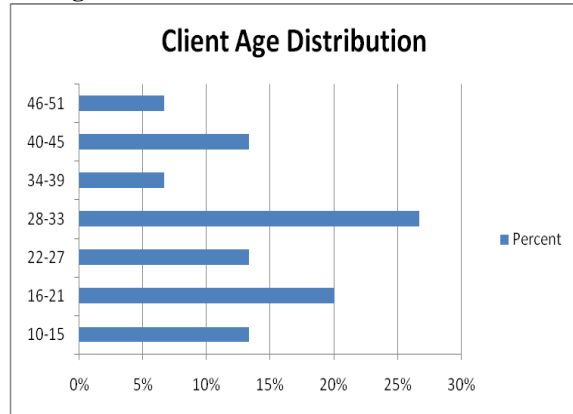
Meanwhile, an analysis of the gender and sex distribution of my clients reveals that males are overrepresented among my clients with a frequency of 10, composing 67 percent of my clients. As shown in Table 5, male clients outnumber the 5 female clients, who make up the remaining 33 percent of the client population.

Table 5 Frequency Distribution and Percentage of Clients Based on Gender/Sex

| Gender/ Sex	Frequency (n)	Percent	Cumulative Percent
Male	10	67%	67%
Female	5	33%	100%
Σ	15	100%	
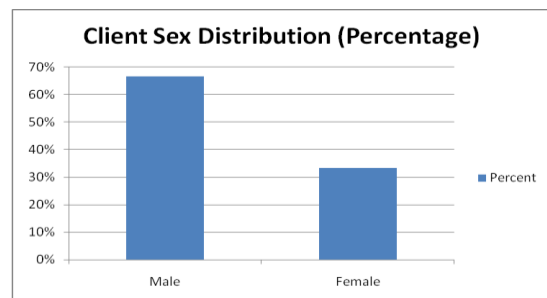
Moreover, an analysis of the distribution of my clients across different substance abuse problems and addiction types show that alcohol dependence rank first among client addictions, with 8 clients currently under therapy to end alcohol dependence. This is followed by metamphetamine abuse, with 4 clients. The remaining 3 of my clients view their inability to stop smoking a source of concern. The frequency distribution of my clients based on

substance abuse type is depicted in table 6 along with a graphical representation of the percentage equivalent of the frequencies vis-à-vis the total number of the client population. The accompanying chart reflects the prevalence of alcohol dependence as a primary problem among my clients, followed by metamphetamine use and tobacco dependence.

Table 6 Client Distribution According to Substance Abuse Type

Type of Substance Abuse	Frequency (n)	Percent	Cumulative Percent
Alcohol	8	53%	53%
Tobacco/Nicotine	3	20%	73%
Metamphetamine	4	27%	100%
Σ	15	100%	
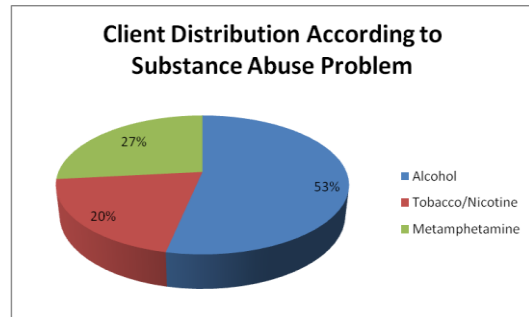
Thus, the use of statistical analysis tools enables me to gain insight into the demographic characteristics of my clients. It gives me significant insights on the distribution of my clients based on age, gender, and specific addiction problems. By performing basic statistical analysis, I am able to gain a meaningful picture of what my daily life as a counselor involves, including the challenges of working with a predominantly young and male client population with alcohol-related problems.

References:

Angel, A., Abbott, C., & Runde, D. (2007). *A survey of Mathematics with applications*. Pearson.

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