



Informing Clients How Slot and VLT Machines Work:

A Critical Component of Treatment

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Overview

- ◆ The consumer of gambling services (gambler) does not have full access to information on how EGMs (slot machines, video lottery terminals) operate.
- ◆ Both non-problematic and problem gamblers have erroneous beliefs on how EGM's operate.
- ◆ These erroneous beliefs may be a contributing factor to some individuals experiencing problems with EGM gambling.



Background

Main Reason for Relapse by Gender (Hodgins & el-Guebaly, 2004)

Main Reason for Relapsing	Men %	Women %	Overall %
Optimism about winning	24	21	23
Need to make money	22	7	17
Unstructured time or boredom	17	7	13
Giving in to urges, habit or opportunity	9	15	11
Dealing with negative situations/emotions	7	18	11
Socializing or fitting in	7	11	8
Seeking excitement or enjoyment	5	8	7
All other answers	9	10	9



Problem Gambling Clients In Saskatchewan

- ◆ Specialized problem gambling treatment services in all areas of province since 1995;
- ◆ Over 5,000 clients have been provided with treatment services;
- ◆ Regina Qu'Appelle Health Region provides a range of specialized problem gambling services to over 250 clients annually. Services include an intensive 30 hour day treatment program for residents of southern Saskatchewan.

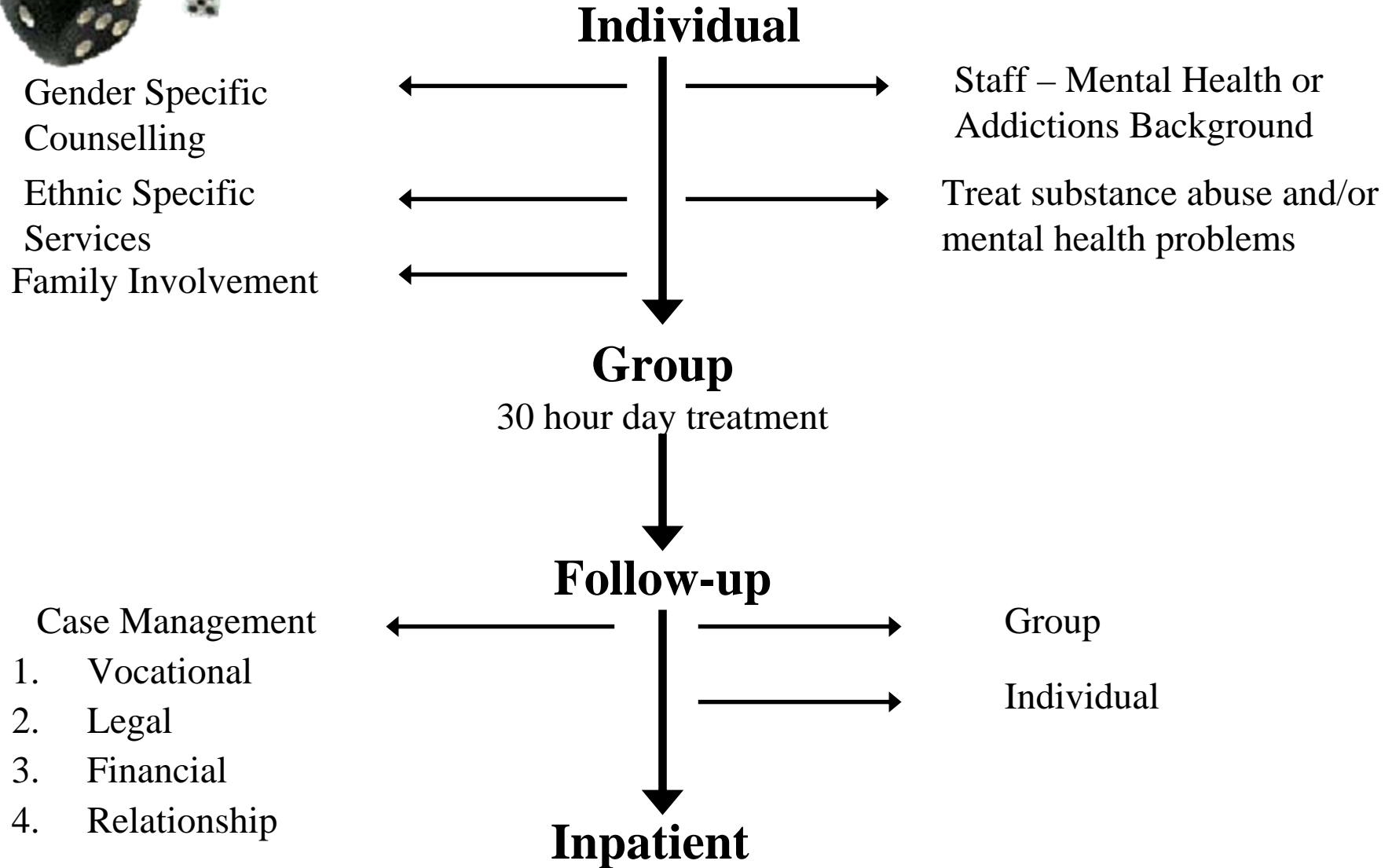


Client Profile

- ◆ Multiple problematic i.e.
 - ◆ History Co-existing Chemical Dependency;
 - ◆ Mental Health Problems;
 - ◆ Past Suicidal Behavior
- ◆ Over 90% of the clients have experienced severe problems related primarily to VLT or slot machine gambling



BIO – PSYCHO – SOCIAL – SPIRITUAL MODEL - STAGES OF CHANGE





Key Treatment Components

- ◆ Problem gambling signs & symptoms
- ◆ Effects on family
- ◆ Triggers & Beliefs
- ◆ Concurrent disorders
- ◆ Financial issues
- ◆ Stages of change
- ◆ G.A.
- ◆ Relapse issues
- ◆ Lifestyle changes
- ◆ Treatment options
- ◆ How Machines work




How Machines Work: The Session

- ◆ Problem gambling clients have spent hundreds of hours in front of EGM machines and have developed set beliefs or myths over how the machines actually work;
- ◆ These beliefs and myths are almost always incorrect, and players require accurate information concerning machine programming;
- ◆ The session is 90 minutes in length, and is designed to be highly interactive and visual for these clients.



How Slots are Programmed

Clients are presented with information on how slot machines were originally designed.....



Once upon a time.....

- ◆ When slot machines were first invented they were mechanical. Each symbol on each of the 3 reels corresponded to a mechanical slot on each reel. Most of these machines had 20 stops (slots) on each reel. Each reel was identical to the other reels on the machine.
- ◆ There were only 8,000 possible results, which meant that only small prizes could be offered.



How Slots are Programmed

The presentation focuses on the changes in slot technology as the machines have moved from mechanical gears to computer chips.....



And then, one day, along came.....

- ◆ When computer chip technology came along, it didn't take the gaming industry long to figure out they could use it to change from mechanical stops to virtual stops - increasing the number of possible results, increasing the prizes that could be offered, and of course increasing profits.



How Slots are Programmed

The session highlights that players are provided very little information about how the machines work. One of the only pieces of information they are provided is the payable.....



What you can see: Payout Table

Center Payline Pays

Three bars	5000
Three cherries	1000
Three plums	200
Three watermelons	100
Three oranges	50
Three lemons	25
Any two cherries	10
Any one cherry	2



How Slots are Programmed

One of the only other pieces of information that players see on slot machines are the spinning reels.....



What You Can See: Spinning Reels

- ◆ The traditional spinning reel slot machine has 1 payline and 3 spinning reels, with each reel having 22 symbols (cherries, plums, watermelons, oranges lemons, blanks).
- ◆ Newer video display slots have computer display reels with 3, 4 or 5 reels each with up to 90 symbols.



How Slots are Programmed

Clients are provided a detailed explanation of what is happening with the slot machine when they see the reels spinning.....




What You Can See: Spinning Reels

- ◆ When the player pushes the spin button, the display reels “spin”.
- ◆ This has nothing to do with how the machine determines the results. It is intended only for entertainment purposes.
- ◆ After a few seconds the display reels show the player the result of the “spin”.



How Slots are Programmed

The presentation provides a detailed explanation of virtual reel programming (mapping), and how this is different than mechanical spinning reel machines, and more importantly different than what players see on the display window or screen.....



Virtual stops - an example

Symbol	Reel 1	Reel 2	Reel 3
Bar	4	3	1
Cherry	5	4	2
Plum	6	4	3
Watermelon	6	5	4
Orange	7	5	6
Lemon	8	6	6
Blank	28	37	42
Total	64	64	64



Reel 1 Mapping

1	Bar	17	Watermelon	33	Orange	49	Plum
2	Cherry	18		34	Lemon	50	Plum
3		19	Lemon	35	Plum	51	Lemon
4	Orange	20	Orange	36	Lemon	52	Orange
5		21		37		53	
6	Lemon	22	Bar	38		54	Watermelon
7		23		39	Orange	55	
8		24	Cherry	40	Watermelon	56	Cherry
9	Cherry	25	Bar	41		57	
10		26	Lemon	42		58	
11		27		43	Lemon	59	
12	Plum	28	Plum	44		60	
13	Bar	29	Orange	45	Watermelon	61	Cherry
14		30		46		62	
15		31		47	Lemon	63	Orange
16	Watermelon	32	Watermelon	48		64	Plum



Reel 2 Mapping

1	Cherry	17		33		49	Cherry
2		18		34	Orange	50	
3		19	Orange	35	Watermelon	51	
4	Bar	20		36	Watermelon	52	
5		21		37	Watermelon	53	
6		22	Lemon	38	Cherry	54	
7	Lemon	23	Plum	39		55	
8	Watermelon	24		40	Lemon	56	
9		25	Watermelon	41	Lemon	57	Lemon
10	Plum	26		42	Orange	58	
11		27		43		59	Plum
12		28	Bar	44		60	
13		29		45	Cherry	61	Orange
14	Bar	30		46		62	
15	Orange	31		47		63	
16		32		48	Plum	64	Lemon



Reel 3 Mapping

1	Plum	17		33	Plum	49	Cherry
2		18		34		50	
3		19	Orange	35		51	Orange
4	Orange	20		36		52	
5		21		37		53	
6	Lemon	22	Lemon	38		54	
7		23		39	Orange	55	Plum
8		24		40	Watermelon	56	
9		25	Orange	41	Lemon	57	
10		26		42		58	Lemon
11		27	Watermelon	43	Lemon	59	
12	Cherry	28		44		60	Watermelon
13		29		45		61	Watermelon
14		30	Orange	46		62	
15		31		47		63	
16		32	Bar	48	Lemon	64	



How Slots are Programmed

Clients are shown a Random Number Generator from the GamePlanit Slot Tutorial program. The role of the RNG and how it operates is carefully explained.....



How Slots are Programmed

Clients are then given a demonstration on exactly what occurs when a player pushes the spin button on a slot machine.....



What Happens When the Spin Button is Pushed

- ◆ The player pushes the spin button. The RNG chooses 3 numbers e.g.:
 - 3,333,714,580
 - 1,985,645,123
 - 4,212,352,215
- ◆ The computer “calculates” the remainders for the 3 numbers by dividing the number by the number of virtual stops on each reel.



Seeing What Really Happens

Trial		Reel 1	Reel 2	Reel 3	Result
1	Number	20	3	23	
	Symbol				
2	Number				
	Symbol				
3	Number				
	Symbol				
4	Number				
	Symbol				



Reel 1 Mapping

1	Bar	17	Watermelon	33	Orange	49	Plum
2	Cherry	18		34	Lemon	50	Plum
3		19	Lemon	35	Plum	51	Lemon
4	Orange	20	Orange	36	Lemon	52	Orange
5		21		37		53	
6	Lemon	22	Bar	38		54	Watermelon
7		23		39	Orange	55	
8		24	Cherry	40	Watermelon	56	Cherry
9	Cherry	25	Bar	41		57	
10		26	Lemon	42		58	
11		27		43	Lemon	59	
12	Plum	28	Plum	44		60	
13	Bar	29	Orange	45	Watermelon	61	Cherry
14		30		46		62	
15		31		47	Lemon	63	Orange
16	Watermelon	32	Watermelon	48		64	Plum



Reel 2 Mapping

1	Cherry	17		33		49	Cherry
2		18		34	Orange	50	
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5		21		37	Watermelon	53	
6		22	Lemon	38	Cherry	54	
7	Lemon	23	Plum	39		55	
8	Watermelon	24		40	Lemon	56	
9		25	Watermelon	41	Lemon	57	Lemon
10	Plum	26		42	Orange	58	
11		27		43		59	Plum
12		28	Bar	44		60	
13		29		45	Cherry	61	Orange
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15	Orange	31		47		63	
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Reel 3 Mapping

1	Plum	17		33	Plum	49	Cherry
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3		19	Orange	35		51	Orange
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5		21		37		53	
6	Lemon	22	Lemon	38		54	
7		23		39	Orange	55	Plum
8		24		40	Watermelon	56	
9		25	Orange	41	Lemon	57	
10		26		42		58	Lemon
11		27	Watermelon	43	Lemon	59	
12	Cherry	28		44		60	Watermelon
13		29		45		61	Watermelon
14		30	Orange	46		62	
15		31		47		63	
16		32	Bar	48	Lemon	64	



Seeing What Really Happens

Trial		Reel 1	Reel 2	Reel 3	Result
1	Number	20	3	23	0
	Symbol		blank	blank	
2	Number	5	12	46	
	Symbol				
3	Number				
	Symbol				
4	Number				
	Symbol				



Reel 1 Mapping

1	Bar	17	Watermelon	33	Orange	49	Plum
2	Cherry	18		34	Lemon	50	Plum
3		19	Lemon	35	Plum	51	Lemon
4	Orange	20	Orange	36	Lemon	52	Orange
5		21		37		53	
6	Lemon	22	Bar	38		54	Watermelon
7		23		39	Orange	55	
8		24	Cherry	40	Watermelon	56	Cherry
9	Cherry	25	Bar	41		57	
10		26	Lemon	42		58	
11		27		43	Lemon	59	
12	Plum	28	Plum	44		60	
13	Bar	29	Orange	45	Watermelon	61	Cherry
14		30		46		62	
15		31		47	Lemon	63	Orange
16	Watermelon	32	Watermelon	48		64	Plum



Reel 2 Mapping







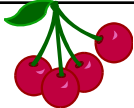
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2		18		34	Orange	50	
3		19	Orange	35	Watermelon	51	
4	Bar	20		36	Watermelon	52	
5		21		37	Watermelon	53	
6		22	Lemon	38	Cherry	54	
7	Lemon	23	Plum	39		55	
8	Watermelon	24		40	Lemon	56	
9		25	Watermelon	41	Lemon	57	Lemon
10	Plum	26		42	Orange	58	
11		27		43		59	Plum
12		28	Bar	44		60	
13		29		45	Cherry	61	Orange
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15	Orange	31		47		63	
16		32		48	Plum	64	Lemon



Reel 3 Mapping

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3		19	Orange	35		51	Orange
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5		21		37		53	
6	Lemon	22	Lemon	38		54	
7		23		39	Orange	55	Plum
8		24		40	Watermelon	56	
9		25	Orange	41	Lemon	57	
10		26		42		58	Lemon
11		27	Watermelon	43	Lemon	59	
12	Cherry	28		44		60	Watermelon
13		29		45		61	Watermelon
14		30	Orange	46		62	
15		31		47		63	
16		32	Bar	48	Lemon	64	

Seeing What Really Happens

Trial		Reel	Reel	Reel	Result
		1	2	3	
1	Number	20	3	23	0
	Symbol		blank	blank	
2	Number	5	12	46	0
	Symbol	blank	blank	blank	
3	Number	26	8	19	0
	Symbol				
4	Number	32	19	49	2
	Symbol				



How Slots are Programmed

All players seem to misunderstand the issue of payout rates and what the industry means by these figures. Clients are presented with a specific example of how the payouts are calculated for a 3 reel, 64 virtual stop slot machine.....



How payout rates are calculated

Symbol	Reel 1	Reel 2	Reel 3	Number of Winning Combinations	Total Possible Results	Winning Payout	Payout rate	Odds of Results 1 in:
Bar	4	3	1	12	262,144	\$5,000	22.89%	21,845
Cherry	5	4	2	40	262,144	\$1,000	15.26%	6,554
Plum	6	4	3	72	262,144	\$200	5.49%	3,641
Watermelon	6	5	4	120	262,144	\$100	4.58%	2,185
Orange	7	5	6	210	262,144	\$50	4.01%	1,248
Lemon	8	6	6	288	262,144	\$25	2.75%	910
2 Cherries				2,312	262,144	\$10	8.82%	113
1 Cherry				40,312	262,144	\$2	30.76%	7
Blanks	28	37	42					
Total	64	64	64				94.55%	



How Slots are Programmed

Finally, clients are provided with an example of how player behaviour determines their rate of return, and how significantly different this is from a slot machine's rate of return....



And what is the player's rate of return?

- ◆ The payout rate does not refer to how much money the player will leave with, or what the odds of winning are for the player – it just refers to the rate of house advantage on the machine. This never changes.
- ◆ Payout rates range from 85% to 99% depending upon game and jurisdiction.



And what is the player's rate of return?

- ◆ Wagering \$2.50 every 5 seconds, the expected rate of loss for a player on a machine with a house edge of 7.5% would be \$135 an hour. If a player has an initial stake of \$100, the player will experience an expected return rate of:

– **100%,**

and they would be broke in just under 45 minutes.



And what is the player's rate of return?

- ◆ The player's return rate is based on:
 - their total amount of money wagered,
 - their rate of play (how many wagers per minute),
 - their wager amount, and
 - the amount of time spent gambling.
- ◆ These factors change constantly.



Discussion

- ◆ All sessions (Modules) evaluated by clients.
- ◆ 2 Modules most highly rated:
 - How Slots Work
 - Self-Recovery testimonial
- ◆ Higher efficacy – men.
- ◆ Effective component in overall recovery package.
- ◆ Outcome study in progress.