Office Design

Treatment Room Design

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In dental office design, the first question we ask our clients is whether they want traditional closed rooms or modular cabinetry. Most of the time clients have initial opinions of what they want, but they also want to know the advantages and disadvantages to using the other design methods. In Part I, we will explore why some practitioners choose completely closed and walled in environments and others have open environments while yet others select some hybrid in between. There is not a right or wrong approach, just one that feels right and makes the most sense for you.

Design choices are common to particular specialists:

Oral Surgeons have totally closed treatment rooms with doors and smaller exam rooms usually with doors. This is for both asepsis and sound control.

Periodontists usually have one or two closed surgery rooms with doors and then a traditional walled or modular group of rooms without doors for exam and hygiene. The growing trend is towards modular design.

Orthodontists usually have one or two exam/consult rooms with doors and then a totally open bay with no walls. Recently, however, many doctors have requested partial walls between chairs in the bay area to separate chairs and improve operator to patient and parent communications.

Pediatric Dentists have two or more “quiet rooms” which are not only closed with doors but usually have extra soundproofing applied. I guess the name “quiet room” is the optimistic expectation! They will then have a totally open bay for exam/hygiene; however, lately the trend is to go more modular design with some division between the chairs.

Endodontists will vary from all closed rooms to totally modular treatment rooms. Many times the walls are more for mounting microscopes, x-rays and lights than for sound control.

Prosthodontists will also vary widely from closed rooms to modular treatment rooms. The difference seems more in the personality of the doctor than in actual needs one way or the other.

General Dentists are the most varied group just like the types of practices they have, choosing from closed rooms with doors to almost totally open environments. The most common trend lately is a modified modular approach that utilizes modular for its strengths and walls for theirs.

A closed room is defined as one with four walls and at least one entrance. The closed room may or may not have doors on it; however, it is getting exceedingly difficult to put doors on a treatment room and meet the restrictions of the Americans with Disabilities Act. At least one door has to be ADA compliant, which means it has to have an unrestricted opening of at least 36”. That’s not too hard to achieve, but, in addition, you have to have 18” clear away from the door jamb so a person inside the room in a wheelchair can get his or her feet out of the way to open the door unassisted. Additionally that 18” from the jamb has to remain clear out into the room for 60”. (Fig 1) That means you can almost never open a swinging door inward.
into the room. You usually can’t swing the door into the hallway outside without the risk of hitting someone passing the door, but this problem can be solved in one of two ways. The first is to have a door that swings both ways into the room and out to the hallway. For safety reasons you may choose to rarely swing it out, but it provides for the ADA restriction. The down side is that a swinging door doesn’t have a door stop, so it doesn’t effectively control noise, which is the most common reason to have a closed room in the first place. (Fig 2) The second way to achieve compliance is to use the old pocket door with a new twist. We use a large 36” pocket door and put ADA hardware on it, which means it has handles on both sides that keep it from going completely back into its frame in the wall. The hardware uses 1.5” of the opening, but that still leaves 34” clear. The ADA handles actually make this normally cumbersome type of door practical. The second door for the assistant does not usually have to be compliant and can be a traditional door without these clearances at least in most jurisdictions. In some jurisdictions, however, the building inspectors have demanded both be handicapped accessible even though the law does not read that way. (Fig 3)

A modified closed room is one where there is no 12 o’clock wall and you utilize a freestanding modular unit to form the wall between the treatment room and the hallway. (Fig 4)

The totally modular concept uses divider walls to separate the treatment rooms as well as the 12 o’clock wall, and these not only form a barrier but act as the support for the x-ray and lights, and the unit provides the hand washing station and drawer support to the treatment rooms on both sides of it. (Fig 5)

A newer modification breaks down the modular concept into “pods” of two treatment rooms separated by a modular wall, but then they have traditional walls on both ends of the “pod”. This uses all the advantages of the modular concept and most of the advantages of the traditional walled treatment room. Note that the newer modular divider walls are now 7’4” to 7’6” high and have a flat top. This means they do not have much opening to communicate sound over the top and a background music speaker placed directly over them pretty much shuts off effective transfer of sound. You can also fill the area between the top of these modular walls and the ceiling with either a manufacturer provided extension or glass mounted in a track system on the top of the wall and the ceiling. (Fig 6)

Whatever plan you choose to design your treatment rooms, you will want to consider the size of the rooms. A closed room is generally 10’W x 11’D. The room can be wider than 10’, but extra width puts you too far from the side cabinetry and lessens your efficiency. If you have a 10’ room and you have an 18” deep cabinet on each side wall, then you have 84” between the two cabinets, and when you subtract the average chair width of 26”, you are left with 58” or approximately 29” on each side of the chair. This is generally adequate unless you have an over-the-patient delivery system with a cuspidor; then you should add at least 6” to the overall width. A-dec makes a trimmer line of cabinets that are only 16 7/8” deep which provide a little more room as an 18” cabinet is generally 19” deep at the countertop. (Fig 7)

Most practitioners ask for ambidextrous treatment rooms to enhance the resale value of the practice or to accommodate an opposite-handed partner or associate. This also helps accommodate hygienists or expanded function assistants who may be opposite-handed from the primary practitioner.